

CHELMSFORD  
RURAL DISTRICT COUNCIL

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ANNUAL REPORT  
OF THE  
MEDICAL OFFICER of HEALTH

(JOHN F. MACDONALD, M.B., Ch.B., M.D., D.P.H.)

(Barrister-at-Law.)

FOR

= = 1920. = =

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CHELMSFORD :  
PRINTED BY JOHN DUTTON, 8, TINDAL STREET.

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MDCCCXXI.

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Waterloo Lane,

Chelmsford,

March 29th, 1921.

TO THE CHAIRMAN AND MEMBERS OF THE  
CHELMSFORD RURAL DISTRICT COUNCIL.

*Sir and Gentlemen,*

*I have the honour to present for your consideration my Annual Report on the health and sanitary circumstances of your district during the year 1920.*

*For the sympathetic consideration and assistance received during the year, I beg to thank the Council.*

*To my colleagues I am much indebted for valuable assistance in the preparation of this Report.*

*I beg to remain, Gentlemen,*

*Your obedient Servant,*

JOHN F. MACDONALD-



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## CHELMSFORD RURAL DISTRICT.

### NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

POPULATION. At the 1901 census this was 23,800, but in 1907 an area with a population 3,075 (in 1901) was taken from the District and added to the Borough. At the 1911 census the population was as under:—

In the Great Waltham sub-registration

district	...	...	...	7,135 in 10	parishes
„	Chelmsford	„	...	3,719 in 3	„
„	Great Baddow	„	...	5,141 in 5	„
„	Ingatestone	„	...	6,797 in 11	„
Total			...	22,792 in 29	„

The estimated population (given by the Registrar-General) for 1920 was 23,144.

POSITION. Almost in the centre of the County of Essex, and completely surrounding the County Town (the Borough of Chelmsford).

SIZE. The district is an irregular oblong, about 14 miles long (North to South), and 11 miles wide. The area, exclusive of a little inland water, is 82,772 acres.

**PHYSICAL AND GENERAL CHARACTERS.** The whole area drains into the River Chelmer and its tributaries, and is gently undulating. The entire district is on the London Clay, but this is only exposed in the southern half; elsewhere it is covered with gravel or boulder clay or both. The highest part is Danbury Hill, which, at the Church, is 366ft. above ordnance datum. Fortunately, this elevation is capped with water-bearing gravel, the springs from which are utilized for supplying several villages with water. The lowest point is in the Chelmer valley, at the extreme east of the district, where the ground level is only 44ft. above ordnance datum. The whole district is agricultural, and the only common land is at Danbury, Galleywood and Mill Green (Ingatestone). The area of this heath land is comparatively small (about 464 acres).

**SOCIAL CONDITIONS.** The major portion of the population is engaged in agricultural pursuits. A considerable number of persons employed in London live in the district, the railway facilities leaving little to be desired. There are no large works within the area, but many of the workmen employed in the large factories in Chelmsford reside in the rural district, and this has increased the difficulties associated with the housing problem.

The rateable value of the district for the half-year ending :—  
 31st March, 1920, was £167,011 (including lands £51,186).  
 '30th September, 1919, was £167,087 (including lands £51,564).

The assessable value of the district for the half-year ending :—

31st March, 1920, was £141,418.  
 30th September, 1919, was £141,305 (a penny rate produces £589).

The outstanding debts on 30th September, 1919 and 1920, were £35,091 13s. 6d. and £33,185 11s. 10d. respectively, made up as follows :—



			1919.			1920.			
			£	s.	d.	£	s.	d.	
For Hospital..	..	..	..	441	14	8	359	6	5
For Housing (Non-Assisted)	..	..	..	2614	0	7	2597	17	8
For Water Supply, Little Baddow..	..	..	..	625	0	10	589	7	5
„	„	Danbury	..	535	4	1	467	18	9
„	„	E. Hanningfield	..	339	12	5	304	11	2
„	„	Rettendon	..	1833	7	5	1688	12	8
„	„	Runwell	..	507	3	10	467	12	7
„	„	Sandon	..	362	3	4	336	7	0
„	„	Woodham Ferris	..	2002	12	1	1861	6	4
For Sewerage and Water supply Broomfield	..	..	..	6049	2	2	5814	7	7
„	„	„ Ingatestone	..	6216	0	5	5878	19	3
„	„	„ Gt. Baddow	..	5350	14	1	5051	6	1
„	„	„ (S.D.D.)	..	8214	17	7	7767	18	11
„	„	„ Writtle (S.D.D.)	..	8214	17	7	7767	18	11
			<hr/>			<hr/>			
			£35091	13	6	£33185	11	10	

In addition to above outstanding debts, the Council had spent in state-aided Housing Schemes by:—

30th September, 1919, Nil.

30th „ 1920, £18,315 0s. 3d.

31st December, 1920, £27,063 19s.

Within recent years the services undertaken by local Public Health Authorities have been considerably extended and aimed at improving the comforts as well as the health of the community. The comforts of the people have been so rapidly raised, that in times of stress such as the country is going through at the present moment, the expenses are proving a drag upon the economic machinery. This is exemplified in the following table, the particulars of which were kindly supplied by the Assistant Overseers. Further extension of communal services under the present financial difficulties is apt to get Public Health into ill repute, and as the confidence of the public is essential in order to obtain the greatest good out of any communal service, it is much better to postpone new schemes, if at all possible, until more favourable conditions prevail.

The following table compares the rates and water charges levied during the financial years ending 31st March, 1914, 1920, and 1921 :—

Parish.	POOR RATE.			SPECIAL RATE			WATER CHARGES.
	1913-14. s. d.	1919-20. s. d.	1920-21. s. d.	1913-14. s. d.	1919-20. s. d.	1920-21. s. d.	† s. d.
Great Baddow ...	6 2	6 8	12 0	0 6	0 11	4 5 <i>a</i>	0 9
Little Baddow ...	5 10	6 2	11 10	—	—	—	2 0
Boreham ...	5 6	6 0	11 0	—	—	—	—
Broomfield ...	6 6	6 6	11 4	2 0	1 6	1 10 <i>f</i>	2 0
Buttsbury ...	6 0	6 8	11 4	—	—	—	—
Chignall ...	5 8	6 0	11 4	—	—	—	—
Danbury ...	6 4	6 6	12 0	—	—	—	1 6
Good Easter ...	7 6	7 4	12 4	—	—	—	—
East Hanningfield	6 0	6 4	12 6	—	—	—	2 0
South „ ...	5 8	6 0	12 0	—	—	—	—
West „ ...	6 0	6 4	12 8	—	—	—	—
Ingatestone & Fryerning	6 0	6 7	11 8	1 6	1 6	1 9 <i>a</i>	1 6
Great Leighs ...	6 4	6 8	12 6	—	—	—	—
Little Leighs ...	6 6	6 4	12 4	—	—	—	—
Margaretting ...	5 6	6 2	10 10	—	—	0 4 <i>g</i>	—
Mashbury ...	6 0	6 2	13 2	—	—	—	—
Pleshey... ..	6 4	6 8	12 0	—	—	—	—
Rettendon ...	6 0	6 10	11 8	0 8	1 0	2 2 <i>b</i>	2 0
Roxwell... ..	5 6	6 8	12 0	—	—	—	—
Runwell ...	5 8	7 0	13 0	0 5	0 5	1 0 <i>d</i>	2 0
Sandon ...	6 0	6 4	13 4	—	—	—	2 0
Springfield ...	5 8	6 6	11 6	—	—	—	—
Stock ...	5 4	6 4	11 0	—	—	—	—
Great Waltham...	6 0	6 8	12 0	0 6	0 10	0 10 <i>c</i>	—
Little Waltham...	6 0	6 8	12 2	—	1 0	0 4 <i>c</i>	—
Widford ...	5 8	6 4	11 6	—	1 5	1 8 <i>a</i>	1 6
Woodham Ferris	6 0	6 8	12 0	0 6	0 8	1 0 <i>d</i>	2 0
Writtle ...	5 10	6 4	11 4	2 9	3 10	5 9 <i>e</i>	2 0

†The Water Charges for the years 1913-14, 1919-20 and 1920-21 were the same.

*a.* For water, sewerage, scavenging and lighting.

*b.* For water and scavenging.

*c.* For scavenging.

*d.* For water.

*e.* For water, sewerage and lighting.

*f.* For water, sewerage and scavenging.

*g.* For sewerage.



As the Poor Rate include the calls made by the County Council, Board of Guardians, and Rural District (exclusive of special rates), it is interesting to compare the increase in each of these calls for the three years :—

- (1) For the year 1913-1914 the County Call was £23,556.  
 „ „ 1919-1920 „ „ „ „ £36,952, an increase 56 per cent.  
 „ „ 1920-1921 „ „ „ „ £60,575, an increase on 1913-14 of 157 per cent.

- (1) For the year 1913-1914 the Guardians Call was £11,472.  
 „ „ 1919-1920 „ „ „ „ £13,552, an increase of 18 per cent.  
 „ „ 1920-1921 „ „ „ „ £26,597, an increase of 131 per cent. on that of 1913-14, mainly due to increased cost in the maintenance of lunatics, over which the Guardians have no administrative control.

For the year 1913-1914 the District Council Call (exclusive of special rates) was £12,080.

- „ „ 1919-1920 „ „ „ „ (exclusive of special rates) was £12,100, no increase.  
 „ „ 1920-1921 „ „ „ „ (exclusive of special rates) was £21,652, an increase of 79 per cent. on that of 1913-14, mainly due to increase cost of road maintenance.

- (1) Includes whole Union for Guardians and County Calls.

## VITAL STATISTICS OF THE DISTRICT.

The populations, births, deaths, area, etc., for the whole district for the years 1911-1920, inclusive, are given in the table on page 10.

The nett birth rate and death rate is based upon the figures issued by the Registrar General, which are defined by him as follows :—“The number of births and deaths are those registered during the calander year and are corrected for inward and outward transfers, they will differ therefore from uncorrected figures compiled locally either for the calendar year or for a period of fifty-two or fifty-three weeks.”

DEATHS. During the year there were 252 deaths registered in the district ; of these 22 were deaths of non-residents occurring in the district, and in addition there were 59 residents who died out of the district. The total number of deaths allotted to the district during 1920 (equals those registered in the



TABLE III.  
CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1920.

CAUSES OF DEATH.			NETT DEATHS AT THE SUBJOINED AGES OF RESIDENTS WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENT" OR "NON- RESIDENTS IN INSTITUTIONS IN THE DISTRICT.
			All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards.	
All Causes	Certified	...	282	40	4	...	8	8	24	47	151	15
	Uncertified	...	7	1	...	...	...	...	...	1	5	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	2	1	1	...	...	...	...	...	...	...
Influenza	...	...	1	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	1	...	...	...	1	...	...	...	...	9
Pathosis (Pulmonary Tuberculosis)	...	...	...	...	...	...	...	...	...	...	1	1
Tuberculosis Meningitis	...	...	16	...	...	...	1	4	4	...	3	3
Other Tuberculous Diseases	...	...	1	1	...	...	...	...	...	...	...	...
Cancer, Malignant Disease	...	...	3	...	...	...	...	...	...	...	...	...
Rheumatic Fever	...	...	35	...	...	...	1	2	...	...	...	...
Meningitis	...	...	1	...	...	...	1	1	18	15	...	...
Heart Disease	...	...	1	1	...	...	1	...	...	...	...	...
Bronchitis	...	...	35	1	...	...	...	...	...	...	...	...
Pneumonia (all forms)	...	...	25	3	1	...	1	2	6	25	...	...
Other diseases of Respiratory organs	...	...	5	...	1	...	1	...	2	18	...	...
Diarrhoea and Enteritis	...	...	2	...	...	...	...	2	1	...	1	1
Appendicitis and Typhlitis	...	...	4	4	...	...	...	...	...	2	...	...
Cirrhosis of Liver	...	...	2	...	...	...	1	...	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	1	...	...	...	...
Nephritis and Bright's Disease	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	12	...	...	...	...	...	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition	...	...	2	...	...	...	1	1	4	4	4	...
Congenital Debility and Malformation, including Premature Birth	...	...	...	...	...	...	...	...	...	...	...	...
Violent Deaths (excluding Suicide)	...	...	26	26	...	...	...	...	...	...	...	...
Suicide	...	...	6	1	1	...	...	...	...	...	...	...
Other Defined Diseases	...	...	2	...	...	...	...	2	...	2	...	...
Diseases ill-defined or unknown	...	...	104	3	...	...	2	3	11	85	1	1
	...	...	3	...	...	...	...	...	2	1	...	...
TOTALS	...	...	289	41	4	...	8	8	24	48	156	15



district less the non-residents, plus the number of deaths of residents occurring outside the district) was 289 (156 males and 133 females).

This gives a death rate of 12·4 per 1,000 of the population, which is the figure for England and Wales during the same period. The death rate shows a decided decrease on that of former years. Moreover, it has to be remembered that the age and sex distribution of the population in Chelmsford Rural District is less favourable to a low death rate than that of the country generally, in fact, if the distribution of the population in England and Wales and Chelmsford Rural District were the same as at the last census, the corrected death rate for the district during 1920 would come out at 10·2 per 1,000 population as against 12·4 for the whole country.

The deaths classified according to cause and age are given in the table on page 11.

**BIRTHS:** During the year, there were 607 births, 304 males (289 legitimate and 15 illegitimate); 303 females (292 legitimate and 11 illegitimate). This gives a birth rate of 25·8 per 1,000 of the population; the birth rate for the whole country during the same period was 25·4.

The table on page 10 shows the birth rate for the years 1911 to 1920. This table shows that the birth rate has increased considerably compared with recent years, in fact, it is the highest annual birth rate in the district during the last quarter of a century.

What is the cause of this increase in the birth rate?

Owing to the apparent prosperity of the country since the Armistice the marriage rate has increased, which of course directly affects the birth rate; moreover, during prosperous times potential parents realise that they are financially better able to provide the extra expenses associated with an increase in the family.



With a high birth rate there may be a high death rate, so that the natural increase of the population, namely, the excess in the number of births over that of the deaths, may not be so satisfactory. To put it more crude—what has been the profit over the year's transaction? We find for the year 1920 the excess of births over the deaths (profit of human lives on the year) has been 318, the highest on record—the only previous year that showed a figure of over 300 was during 1891, when the natural increase of the population was 301.

**INFANTILE DEATH RATE:** The number of deaths of persons under one year of age was 41, 24 males (23 legitimate, 1 illegitimate); 17 females (15 legitimate, 2 illegitimate). This gives an infantile death rate (namely the number of deaths of infants under one year per 1,000 births) of 67, whereas the rate for the whole country during the same period was 80.

On referring to the table on page 10 it is seen that the infantile death rate for 1920 compares favourably with those of former years.

The infantile deaths among legitimate infants was 1 in 15, whereas the illegitimate deaths come out at 1 in 8 and although the figures are small still it shows the very large mortality among illegitimate children when one out of every eight born in the district dies before reaching the age of one year.

The deaths among infants during the year are classified according to cause and age in the table on page 15. There it is seen that more than half the deaths come under the heading "congenital malformation, premature birth, atrophy, debility, etc."; the cause of this is usually found to be pre-natal and therefore to lower the Infantile death rate we must direct our efforts to improving the health of the expectant mother.



# BIRTH-RATE, DEATH-RATE, and ANALYSIS OF MORTALITY during the Year 1920.

(Provisional figures. Populations estimated to the middle of 1920 have been used for the purposes of this Table.)

	BIRTH-RATE PER 1,000 TOTAL POPULA- TION.	ANNUAL DEATH-RATE PER 1,000 CIVILIAN POPULATION.								RATE PER 1,000 BIRTHS.		PERCENTAGE OF TOTAL DEATHS.*			
		All Causes.	Enteric Fever.	Influenza.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Violence.	Liarrhoea and Enteritis (under 2 Years).	Total Deaths under One Year.	Deaths in Public Institutions.	Certified Causes.	Inquest Cases.	Uncertified Causes of Deaths.
England and Wales ... ..	25.4	12.4	0.01	0.28	0.19	0.04	0.11	0.15	0.48	8.3	80	24.3	92.2	6.6	1.2
96 Great Towns, including London (Census Populations exceeding 50,000)	26.2	12.5	0.01	0.31	0.22	0.04	0.14	0.16	0.43	10.4	85	31.3	92.2	7.1	0.7
118 Smaller Towns (Census Populations 20,000—50,000)	24.9	11.3	0.02	0.27	0.19	0.03	0.10	0.14	0.38	7.8	80	16.6	93.2	5.3	1.5
London ... ..	26.5	12.4	0.01	0.30	0.22	0.05	0.17	0.22	0.47	9.5	75	46.8	91.2	8.6	0.2
Chelmsford Rural District ...	25.8	12.4	0.00	0.17	0.00	0.00	0.08	0.04	0.25	0.65	67	19.0	91.9	5.6	2.5

\*Non-civilians are included in these figures for England and Wales but not other areas.

TABLE IV.  
RURAL DISTRICT OF CHELMSFORD—INFANT MORTALITY DURING THE YEAR 1920.  
Nett Deaths from stated causes at various Ages under 1 Year of age.

Cause of Death.		Under 1 week	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under One Year.
All Causes	Certified	14	2	8	2	26	5	3	4	2	40
	Uncertified	...	...	...	...	...	1	...	...	...	1
Bronchitis	...	...	...	...	...	...	...	2	...	...	2
Whooping Cough	...	...	...	...	...	...	1	...	...	...	1
Convulsions	...	...	...	...	...	...	...	...	1	1	2
Diarrhoea and Enteritis	...	...	...	2	...	2	...	1	...	...	3
Congenital Malformation, Premature Birth, Atrophy, Debility, etc...	...	13	2	6	2	23	5	...	...	1	29
Cerebral Meningitis	...	...	...	...	...	...	...	...	1	...	1
Other causes	...	1	...	...	...	1	...	...	2	...	3
TOTALS	...	14	2	8	2	26	6	3	4	2	41

### POOR LAW RELIEF.

The following information has been kindly furnished by Officers of the Guardians :—

During the years ending 31st December, 1919 and 1920, the Guardians granted the following amount of outdoor relief :—

	1919.			1920.		
	£	s.	d.	£	s.	d.
For Rural District Area ...	2,288	4	3	2,728	4	11
For Borough Area ...	634	8	0	1,073	10	0
Total ...	£2,922	12	3	£3,801	14	11

The number of persons granted outdoor relief, except during periods of marked unemployment, is fairly uniform throughout the year, and the following gives the number receiving relief on :—

	31st December, 1919.		31st December, 1920.	
	Rural District area.	Borough area.	Rural District area.	Borough area.
Men ...	32	1	30	1
Women ...	108	30	103	37
Children ...	98	49	91	73
Totals ...	238	80	224	111
Grand Totals	318		335	
Receiving Medical Relief alone ...	25		18	

During the year ending 30th September, 1920, the following gives particulars of those given indoor relief :—

	Rural District area.	Borough area.	Total.
Men ...	95	85	180
Women ...	90	58	148
Children ...	20	13	33
	205	156	361

The total for the previous year was 360, as against 361 during 1920. The latter inmates were resident, a total of 57,755 days, as against 54,418 for the previous year.

The above figures include cases in Infirmary which has 119 ordinary and 4 maternity beds.

In addition there are cottage homes for 35 boys (Writtle), for 22 girls (Great Baddow), and at the end of the year there were 22 boys and 10 girls in the homes.

The Chelmsford and Essex Hospital and Dispensary in the Borough of Chelmsford is provided with 43 beds including those in two private wards and two in the Isolation Block as follows :—

1. Seven Wards—two for men, one for women, one for children, two for Private cases and one for Isolation cases.

2. A thoroughly equipped New Out-patients Department.

3. An Operating Theatre (with Anæsthetic Room adjoining).

4. A Casualty Room.

5. A Rontgen Ray Room.

6. A Dispensary.

7. Day and Night Rooms for the Staff.

During 1918 there were 622 civil patients admitted to the Hospital, and of these 182 were from Chelmsford Rural District.

During the same period 599 out-patients attended the Dispensary.

During 1919 there were 756 patients admitted ; of these 243 were from Chelmsford Rural District.

During 1920 there were 804 patients admitted; of these 283 were from Chelmsford Rural District.

During the same period 1,226 out-patients and casualties, 254 X-Ray and Dental cases were treated.

These figures indicate in a striking manner the excellent service rendered to the community by Chelmsford and Essex Hospital and Dispensary.

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## SANITARY CIRCUMSTANCES OF THE DISTRICT.

### WATER SUPPLY.

---

#### WORKS OWNED AND CONTROLLED BY THE COUNCIL.

##### *Public Water Supplies.*

1. **GREAT BADDOW.**—These works supply Great Baddow s.d.d. and Springfield, in the Borough of Chelmsford. The water is derived in part from springs and in part from a deep well. The water is pumped by means of gas engines into a tank at a sufficient elevation to command the district. From the deep well the water is raised to the ground surface by means of an air-lift pump. The yield of springs and well is 200,000 gallons per day.

During the year the pumping plant was re-arranged, an addition made to the engine house and a new gas engine and suction plant installed.

2. **INGATESTONE AND FRYERNING.**—These works derive water from the chalk, the well and bore being 800 feet deep. The water is pumped by means of a suction gas plant, deep well pumps, and ram pumps to a reservoir on higher ground. The water is soft and excellent. The level of the water in this well has fallen somewhat rapidly and difficulty is experienced



in meeting heavy consumption during the warm months of the year. During the year arrangements were made to augment the supply if this was found necessary.

3. **DANBURY DISTRICT.**—Water from two springs at the edge of Danbury Common, on the southern side of the gravel-capped Danbury Hill. A portion flows into a large covered reservoir, and is then pumped into a tank on a tower at the top of the Hill to supply Danbury, Little Baddow and a few houses in Woodham Walter in Maldon R.D. The remainder flows by gravitation, assisted during the day by pumping, to supply the parishes of Woodham Ferris, Rettendon, Runwell, and part of Sandon. There is a balancing reservoir on the top of Rettendon Hill. The water is soft and of good quality. The yield of the springs is about 80,000 gallons per day. During the year 60 yards of the 4in. main was renewed and enclosed in a bed of gravel to prevent the clay soil from acting on the pipes.

4. **WRITTLE.**—These works supply the Writtle special drainage district. The water is derived from the Thanet sands by means of a bored well. An air-lift pump, with oil engines, raises the water to a tank on the ground level. It is then forced through a mechanical filter into a tank upon a brickwork tower, from which it flows by gravitation to supply the village. The maximum demand during normal conditions is under 100,000 gallons per week. The yield of this well has fallen very considerably and arrangements have been made with the Writtle Brewery Company to supplement the supply from their private water supply.

5. **GREAT WALTHAM.**—A spring supply. The water is raised by a ram to a small tank on iron columns from which it flows by gravitation to standpipes in the village.

6. **LITTLE WALTHAM.**—A spring supply piped direct from a small collecting chamber to the village. Houses are supplied chiefly from standpipes.



7. BROOMFIELD.—The water is obtained by two bored wells each 320 feet deep. The pumping machinery is in duplicate, each set being capable of pumping 5,000 gallons per hour to the water towers. The machinery is driven by two engines, using gas manufactured at the works (by suction gas plant in duplicate). Each of the two steel water towers is surmounted by a steel tank of 8,800 gallons capacity. From the tanks the water flows by gravitation to supply the village. The water is derived from the Thanet sands and is of excellent quality. The mains are of cast iron and consist of 178 yards of 5 inches, 2,715 of 4 inches, and 1,496 of 3 inches. The mains are connected to the mains belonging to the Borough of Chelmsford, to whom a supply is given by meter under agreement.

BOREHAM.—The Parish Council assisted by private subscriptions carried out considerable improvements to the village water supply, a new collecting tank was constructed and the water conveyed in iron pipes to the "spout" from which the public obtain the water.

WEST HANNINGFIELD.—The provision of a public water supply is desirable for this parish. The Council on more than one occasion considered the matter sympathetically but felt that the parish was so sparsely populated and low rated that the cost would be prohibitive, unless supplied from Danbury. The water engineer advised that the yield of the springs at Danbury was not sufficient to warrant the extension of the mains to supply this parish.

The remaining portions of the district are supplied by wells, and of these 54 are public. Twelve samples of water were analysed. During the year there was no extension of water mains carried out.

#### DRAINAGE AND SEWERAGE.

1. GREAT BADDOW S.D.D. AND WIDFORD.—The sewers are connected with those of Chelmsford, and the sewage is

dealt with upon a farm of over 100 acres situated in the rural part of Springfield parish. The control of the farm is in the hands of a Joint Sewerage Committee.

2. WRITTLE.—The sewerage system, owing to the increased population and want of labour during the war, has been overtaxed. For some time the coke beds were in need of renewal and the whole of the land thoroughly cleared, but owing to the difficulty of labour this had not been carried out by the end of the year.

3. INGATESTONE.—The sewage of this village is dealt with upon 11 acres of land. To obtain satisfactory results more land was considered necessary, and during the year 21 acres was purchased and added to the sewage farm.

4. GREAT WALTHAM VILLAGE.—Each of the two sewers communicates with a small tank and gravel filter. The results are not always satisfactory.

5. BROOMFIELD.—This parish is populous and the provision of proper drainage and sewerage requires the consideration of the Council, but owing to the increased cost of labour and material the expenditure would at the present time be prohibitive.

6. MARGARETTING.—A complaint was received as to the foul condition of a ditch in this parish which received the drainage from a few houses. The Council decided to divert the drainage from these houses by providing a 6-inch drain and septic tank. The work had not been undertaken by the end of the year.

#### CLOSET ACCOMMODATION.

In those parts of the district where there are sewers, privies and pail closets have been abolished and water closets

substituted. A considerable number of the latter are of the hand-flushed type.

The following table shows the approximate number of closets of the various types in the district at the end of the year :—

No. of water closets with proper flushing arrangements ...	1,393
No. water closets hand-flushed...	426
No. of pail closets, a small proportion of which have an arrangement of distributing dry earth ... ..	2,688
No. of privies ... ..	1,290
No. of privies abolished during the year ... ..	4

In the congested areas of Great Baddow s.d.d., Ingatestone and Fryerning, Widford and Writtle s.d.d., Sections 39, 40, 41 and 42 of The Public Health Acts Amendment Act, 1907, are applicable.

In towns and populous villages in rural districts where people are congregated together upon a comparatively small area of land the most satisfactory method of disposing of refuse from sanitary conveniences is by providing a water carriage system and an up-to-date sewage purification works, but owing to the financial condition of the country at the present time one must face the fact that the postponement of such schemes becomes necessary.

#### SCAVENGING.

For a number of years the District Council undertook public scavenging by contract in the populous areas as follows :—

Parish.	Nature of scavenging.		Cost.				
			Each year prior to Dec. 1916.	1917.	1918.	1919.	1920.
			£ s.	£ s.	£ s. d.	£ s.	£ s. d.
Gt. Baddow (S.D.D.)	House refuse	...	70 0	110 0	110 0 0	110 0	110 0 0
Broomfield	Night soil, 2 services per week	...	85 0	85 0	104 2 0	178 15	207 18 1
Ingatestone	House refuse	...	60 0	60 0	96 0 0	96 0	96 0 0
Gt. Waltham (part of)	Night soil, 1 service per week	...	31 4	31 4	31 4 0	46 16	51 17 7
Lt. Waltham (part of)	„	...	21 6	21 6	21 6 0	31 4	42 2 7
Widford	House refuse	...	20 0	26 0	26 0 0	26 0	26 0 0
Battlesbridge	Night soil, 1 service per week	...	13 0	13 0	17 6 6	18 4	22 8 0
			<u>£300 10</u>	<u>£346 10</u>	<u>£405 18 6</u>	<u>£506 19</u>	<u>£556 6 3</u>

Owing to the increased cost of labour that occurred during 1920, the average annual cost during the latter months of the year was greater than the actual annual cost.

During the year the District Council continued the scavenging of Broomfield, Great and Little Waltham, by direct labour.

As stated in my previous Annual Report, the District Council decided to undertake the scavenging departmentally (with the exception of Battlesbridge), and to extend the area scavenged to include the two populous localities of Broomfield and Writtle s.d.d. The services to be undertaken departmentally will be as follows:—



Parish.	Nature of Service.
Gt. Baddow (S.D.D.)	House Refuse, weekly service
Broomfield ...	Night Soil, 2 services per week
Broomfield ...	House Refuse, weekly service
Ingatstone ...	House Refuse, weekly service
Gt. Waltham (part of)	Night Soil, 1 service per week
Lt. Waltham (part of)	Night Soil, 1 service per week
Widford ...	House Refuse, weekly service
Writtle (S.D.D.) ...	House Refuse, weekly service

Owing to the increase cost of labour and material the cost of erecting stables was found to be prohibitive, and this delayed getting the scheme in operation, but towards the end of the year stables at Gutters Farm, Broomfield, were hired, and a special Committee appointed (with full powers) to make all the necessary arrangements to have the scheme inaugurated by 31st March, 1921. At the time of writing this report the scheme was actually in operation. This method of carrying out the services as above outlined is bound to prove more efficient than the methods adopted in the past, and it is hoped as economical.

The future may produce a cheap form of motor transport for this kind of work and thus enable the Council to reduce the cost and further extend the area scavenged.

At present the refuse is disposed of as follows :—

**GREAT BADDOW.**—House refuse is deposited on Duffield's Farm Land in the parish of Great Baddow.

**BROOMFIELD.**—(Night soil). Deposited on Patching Hall Farm Land, Broomfield.

**INGATESTONE.**—(House refuse). Deposited on Ray Farm. For a few weeks the refuse was deposited in the old brick yard but was discontinued at the request of the Council.

**GREAT AND LITTLE WALTHAM.**—(Night soil). Deposited on South House Farm Land, Great Waltham.

**WIDFORD.**—(House Refuse). Deposited on Farm Land at Brook End, Springfield.

BATTLESBRIDGE.—(Night soil). Deposited on Farm Land at Battlesbridge.

In the rest of the district, which is sparsely populated, each householder disposes of the refuse by utilising it for the garden.

During the year 17 defective ashbins were replaced by new ones.

### SANITARY INSPECTION OF THE DISTRICT.

The following table prepared by the Inspectors of Nuisances is a classified statement of the number of premises visited, the defects or nuisances discovered, and the action and result of action taken in regard to these.

Nature of Inspection.		Number of				
		Inspections.	Notices served.		Nuisances.	
			Informal.†	Statutory.	Abated.	Outstanding.
General Housing Inspections	...	639	158	2	...	169
	...	40	...	...	...	...
Dwelling Houses.	{ Infectious Diseases...	28	...	...	...	...
	{ Disinfection	138	53	6	40	16
	{ Ordinary Nuisances	117	28	12	15	12
	{ Structural Defects	2	1	...	1	...
	{ Overcrowding	1	2	...	1	1
Schools	...	...	...	...	...	...
Milk Shops	...	...	...	...	...	...
Dairies and Cowsheds	...	129	20	...	19	3
Bakehouses	...	30	5	...	4	2
Privies	...	47	29	3	25	6
Water Closets	...	20	12	2	5	7
House { Defective Drain	...	46	7	2	5	2
Drainage { „ Traps	...	3	2	...	2	...
Water Supply	...	55	6	...	7	...
Pig Styes	...	13	5	1	4	1
Animals improperly kept	...	1	...	...	...	...
Slaughterhouses	...	127	4	...	1	2
Knackers Yard	...	5	...	...	...	...
Other Nuisances	...	179	2	...	3	2
Ashpits	...	...	17	...	16	...
Totals	...	1620	351	28	148	223

† The number of Informal Notices served correspond with the number of defects and nuisances discovered.





TABLE SHOWING THE SANITARY CONDITION, WATER SUPPLY, ETC., OF EACH SCHOOL IN THE DISTRICT.

School.	Number of Scholars.				Sanitary Conveniences.				Refuse Disposal.	Water Supply.	Washing Accommodation.	Drainage.
	Accommodation provided for.	On Register.			Number for.			Type and Disposal of Contents.				
		Boys.	Girls.	Inf'ts.	Boys.	Girls.	Inf'ts.					
Great Baddow ...	292	96	88	70	3	3	3	Pedestal and trough. On sewer.	Council's carts.	Main.	5 basins for girls and infants in cloakroom. 3 basins for boys in cloakroom. 1 basin in cloakroom.	On sewer.
Little Baddow ...	103	30	36	—	2	3	—	Privies emptied twice a year.	Burnt.	Main.	1 basin in cloakroom.	Ditch.
Boreham ...	160	33	31	35	2	5	—	Pails, dry ash used.	Burnt.	Village spout.	1 basin for boys in cloakroom. 1 " " girls "	Connected to road drain.
Broomfield ...	227	59	89	83	3	5	2	Moules earth closets. dry ash used, contents used on gardens.	Burnt, some used on master's and boys' gardens.	Main.	4 basins for boys in cloakroom. 4 " " girls and infants in cloakroom.	To cesspool with filter.
Chignal ...	104	22	35	19	2	3	—	Pails. Contents used upon gardens.	Some burnt, remainder used on gardens.	Well.	1 basin for boys, 2 for girls in cloakroom.	To cesspool—overflow to field ditch.
Danbury ...	175	80	40	35	2	4	2	Pail closets used on allotments. Urinals drained to cesspool.	Burnt.	Main.	1 basin for boys in cloakroom. 1 " " girls "	To cesspool.
Galleywood ...	155	70	77	—	2	3	—	Pail closets, taken away to farm.	Burnt.	Well.	1 " " infants " 1 basin in cloakroom.	Cesspool. Boys' urinal runs direct to roadside ditch.
Good Easter ...	131	23	32	20	2	2	3	Pails attended to twice a week and removed to a field.	Ashes used for closet pails.	Well at school-house.	1 basin for boys in cloakroom. 1 " " girls "	Urinal drains to a cess-pit.
East Hanningfield ...	90	44	34	—	2	2	—	Pail closets. Buried on side of road. (Not satisfactory.)	Burnt.	Main.	2 basins in cloakroom.	To ditch.
South Hanningfield	34	15	19	—	1	3	1	Pail closets to garden.	Burnt.	Public pump in village half-mile away.	1 basin for boys and 1 for girls in cloakroom.	To ditch.
West Hanningfield...	59	17	15	—	2	3	—	Pail closets to a farm.	Burnt.	Rain water tank.	1 basin.	To ditch.
Ingatestone Girls and Infants	137	—	90	39	—	6	—	Pedestal closets on sewer.	Council carts.	Main.	3 basins in cloakroom.	Sewer.
„ Boys	136	80	—	—	3	—	—	Ditto.	ditto	Main.	2 " "	Sewer.
„ Infants	51	—	—	50	—	—	2	Ditto.	ditto	Main.	1 " "	Sewer.
Great Leighs (Provided)	148	20	28	35	2	6	—	Pails removed to farm land.	Some burnt, remainder used on master's garden.	Well.	1 basin for boys in cloakroom. 1 " " girls "	To cesspool.
„ Church ...	106	15	12	22	2	3	—	Pails. Contents put with ashes into a pit away from the school.	Some burnt. Remainder put in a pit with ashes away from the school.	Well water not fit to use. Water for drinking obtained from well at cottages some distance off.	1 basin for boys in cloakroom. 1 " " girls "	No drains.
Margaretting ...	125	50	34	—	3	4	—	Pail closets emptied on allotment.	Burnt.	Pump.	1 basin for boys in cloakroom. 1 " " girls " 1 " " infants "	Cesspool.
Pleshey ...	70	17	19	14	2	2	—	Pail closets. Dry ash used. Removed twice a week.	Burnt. Some removed by Care-taker.	Well in playground.	1 basin for boys in cloakroom. 1 " " girls "	To cesspool. Overflow connected to road drain.
Rettendon ...	142	80	95	—	2	3	2	Pail closets to garden.	Burnt.	Main.	2 basins for boys in cloakroom. 3 " " girls "	Cesspool.
Roxwell ...	179	35	47	32	2	2	2	Pails. Dry ash used. Man attends every evening.	Ashes used for pail closets.	Well water not fit to be used. Water brought from village spout.	1 basin for boys in cloakroom. 1 " " girls "	Cesspool.
Sandon ...	86	30	40	—	1	3	—	Pail closets taken to a dump at side of road. (Not satisfactory.)	Taken to dump at side of road. (Not satisfactory.)	Public pump.	1 in cloakroom.	Drain to ditch.
Stock & Buttsbury...	149	64	65	—	3	4	—	Trough closets to cesspool.	Burnt.	Public pump.	1 basin for both boys and girls.	Cesspool.
Stock Catholic ..	110	29	24	—	3	3	—	Pail contents placed in heap at back of school. (Not satisfactory.)	Burnt.	Well and rain water tank.	1 basin for boys in cloakroom. 1 " " girls "	Cesspool.
Great Waltham ... Village	300	73	67	52	3	4	3	Moules earth closets. Dry ash used. Attended to twice a week.	Some burnt. Remainder removed to allotments.	Main. Very poor and insufficient service.	2 basins for boys. 3 " " girls.	Urinal discharged to a ditch by the school.
„ Ford End	149	53	45	34	2	5	—	Pail closets. No dry ash used. Attended to twice a week.	Removed to an old clay pit.	Public pump by roadside.	2 basins for boys 3 " " girls	To ditch. (Unsatisfactory.)
Little Waltham ...	140	43	31	32	2	5	—	Pails. Dry ash not used. Scavenging by District Council.	Some burnt. Ashes and other refuse left in heap. (Not satisfactory.)	Well on premises.	3 basins.	To cesspool.
Widford...	96	28	23	20	2	3	—	Pail closets attended to twice a week.	In scavenging area.	Main.	2 basins. 1 in each cloakroom.	To cesspool.
Woodham Ferris ...	134	40	36	30	2	3	2	Pail closets to an allotment.	Burnt.	Main.	2 basins for boys in cloakroom. 2 " " girls "	To cesspool.
Writtle ...	436	109	100	99	5	6	4	Water closets connected to sewer.	Removed.	Main.	3 basins for boys in cloakroom. 4 " " girls " 3 " " infants "	Sewer.
Writtle Highwood ...	149	31	34	21	2	5	—	Pails. Removed to pit in master's garden. (Not satisfactory.)	Deposited in pit in master's garden. (Not satisfactory.)	Well.	2 basins for boys in cloakroom. 2 " " girls "	To field ditch.
„ Radley Green	54	15	8	13	1	2	—	Pails. Dry ash used. Contents on allotment.	Some burnt. Dry ash used for pails.	Rainwater underground storage tanks.	1 basin for boys in cloakroom. 1 " " girls in "	To field ditch.

## PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

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**SLAUGHTER HOUSES.**—There are 14 in the district; these are referred to on page 38 under the heading Food.

**DAIRIES AND COWSHEDS.**—There are 103 in the district; these are referred to on page 29 under the heading Food.

**COMMON LODGING HOUSES.**—There are none in the district.

**TENTS, VANS, ETC.**—These have not created any administrative difficulty.

**BAKEHOUSES.**—There are 42 in the district. With the exception of a few these are on the whole kept fairly satisfactory.

**KNACKER'S YARD.**—There is only one in the district. The licence was granted for the first time during 1919. The premises are satisfactory and properly kept.

**CELLAR DWELLINGS** (Section 17 (7) Housing and Town Planning, &c., Act, 1909).—There are none in the district and therefore Regulations are not necessary.

## SCHOOLS.

Closure of Schools for ordinary infectious diseases is not as a rule desirable. The school while kept open is very useful in ascertaining missed cases or "carriers." When closure is deemed necessary it is done under Article 57 of the Code.

At the end of the year there were 31 schools in the district. Six are provided with water closets, 5 being connected with a sewer; 13 schools are supplied with water from the District Council's waterworks.

A summary of the condition of each school has been prepared and tabulated in the table facing page 26. From this table it can be seen there are a number of insanitary conditions which should be attended to forthwith.



## OTHER SANITARY CONDITIONS REQUIRING NOTICE.

The Essex County Council decided to erect a Sanatorium of 200 beds on the site known as Rectory Farm, in the parish of Danbury. On 21st June, 1920, Dr. Chapman, on behalf of the Ministry of Health, held a local public inquiry, when Chelmsford Rural District Council saw fit to oppose the erection of a Sanatorium on this particular site.

The Ministry of Health refused to sanction the erection of a Sanatorium on the Danbury site, and conveyed their decision to the Essex County Council in the following terms :—

“ I am directed by the Minister of Health to state that he has received the report made by Dr. Chapman, one of the Medical Officers of the Ministry, after the inquiry held by him in connection with the proposed purchase by the Essex County Council of the Rectory Farm, Danbury, for the purposes of a sanatorium for the treatment of tuberculosis.

“ The Ministry are advised that the value of this site for sanatorium purposes is materially impaired by the public rights of way, and, so far as building operations are concerned, by the uneven character of the land ; and that the existence of these rights of way and of the neighbouring village and public-houses would seriously interfere with the administration of the proposed institution.

“ The site acquired by the County Council at Sandon in 1913, and the property known as ‘ Hylands,’ Chelmsford, have also been visited and reported upon by Dr. Chapman. The Ministry are advised that the Sandon site has all the advantages of the Danbury site except that (1) the view from the Sandon site is not so good as from the Danbury site ; (2) the soil at Sandon is heavier than at Danbury ; and (3) the Sandon site is at a less elevation than the Danbury site. The Ministry consider that these

comparatively unimportant advantages of the Danbury site do not counter-balance the disadvantages which are referred to above. Moreover the Sandon site comprises a larger area, which would permit of the extension of the institution if desired at some later date, and would enable occupational training in outdoor occupations to be carried out on a larger scale; the slopes of that site are gentle, and the existing footpaths would not interfere with a satisfactory lay-out of the buildings.

“The general views of the Ministry in regard to ‘Hylands’ are set out in their letter of the 15th May last. They are advised that a plentiful supply of water could probably be obtained if a deep well were sunk, and they are advised that the existing buildings are capable of conversion into a suitable modern sanatorium. The cost of the provision of a sanatorium at ‘Hylands’ would, of course, depend to a large extent upon the cost of acquiring the property, but if a reasonable price is paid, they are advised that the cost of a sanatorium at ‘Hylands’ would be substantially less than that of the erection of a sanatorium at Danbury or Sandon, and the sanatorium could be brought into use at a much earlier date.

“The Ministry have given careful consideration to the matter, and having regard to the disadvantages of the Danbury site, and to the fact that the Council are already in possession of a site which, in many respects, is more suitable for the purposes of a tuberculosis sanatorium, they do not feel justified in approving the proposals of the County Council for the acquisition and utilisation of the Danbury site for tuberculosis purposes.

“The Ministry further direct me to draw attention to the circular letter issued by them on the 23rd ultimo (Circular 103), and to suggest that the required plans and particulars for the provision of a sanatorium either at

‘Hylands’ or on the Sandon site, should be submitted to them at the earliest possible date, and in any event before the 31st October next.”

## FOOD.

**MILK SUPPLY.** The milk consumed is produced in the district. The condition of the buildings, etc., in connection with the production of milk has been carefully inspected from time to time during the year.

The registered dairies and cowsheds are not evenly distributed, the north half of the district having comparatively few, probably due to the distance from a railway station. This is shown in the following tabular statement.—

		Dairies and Cowsheds.		Average number of cows.
North half of district	...	28	...	789
South half of district	...	75	...	1488
		<hr/>		<hr/>
Total ...	...	103	...	2277
		<hr/>		<hr/>

With the exception of one dairy all the milking is done by hand and the open milk pail used.

Regular grooming of the dairy herd is far from being general and overalls by milkers are only in use in eight cowsheds.

The following table (pages 30—37) gives certain particulars relating to the registered dairies and cowsheds in the district. The conditions vary considerably—in a few the buildings and management are excellent, in others moderate, and in a few the conditions are such that the production of clean milk is difficult, if not impossible.



PARISH.	NAME OF FARM.	PARTICULARS OF COWSHEDS AND DAIRIES.											GENERAL REMARKS.	
		Cows.	Cubic feet per cow.	Light and Ventilation.	Cowshed Floor.	Cowshed Walls.	Cowshed Drainage.	Dairy Construction.	Water Supply.	Cooling.	Cleanliness.	Galls per day.		Where milk sold.
Great Baddow	Meadgate ...	17	550	Good	Cement (good)	Brick	Cesspool	Wood	Main	Yes	Clean	30	Chelmsford	Manure too close to shed.
"	Sawkins ...	10	490	Vent. good Light bad	"	"	"	"	"	"	Only fair	18	Retail locally	ditto
"	Gt. Seabrights	30	820	Good	"	"	"	Brick	Well	"	Clean	55	"	Manure too close to shed. Direct communication between dairy and cowshed.
"	Duffields ...	22	250	"	"	Wood	"	—	"	"	"	40	"	Manure too close to shed.
"	Gardeners	14	500	"	"	"	"	—	Main	"	"	25	"	ditto
"	Brook ...	20	400	"	"	"	Ditch	Wood	Well	"	Fair	35	London	This shed and drainage is being re-constructed. Manure too close to shed.
"	Barmanus ..	8	585	"	"	Brick	Cesspool	Brick	"	"	Only fair	15	"	Manure too close to shed.
"	Glebe ...	5	500	"	Brick (fair)	"	"	—	"	No	Fair	8	Retail locally	Shed only fair. No dairy.
"	Lt. Mascalls	15	515	"	Cement (good)	"	"	Wood	"	Yes	Clean	25	"	Good shed and dairy.
"	Parklands ...	40	376	"	"	"	"	"	"	"	"	70	London	Manure too close to shed.
"	Cordells ...	7	363	"	Brick (fair)	Wood	"	"	Main	"	Fair	13	Retail locally	Manure too close to shed. Direct communication between dairy and house.
"	Gt. Mascalls	30	597	"	Cement (good)	Brick	"	"	Well	"	Clean	55	London	Good shed and dairy. Direct communication between dairy and cowshed.
"	Hollywoods...	8	500	Vent. good Light bad	"	"	"	"	Main	"	"	15	"	Manure too close to shed.

PARISH.	NAME OF FARM.	PARTICULARS OF COWSHEDS AND DAIRIES.											GENERAL REMARKS.	
		Cows.	Cubic feet per cow.	Light and Ventilation.	Cowshed Floor.	Cowshed Walls.	Cowshed Drainage.	Dairy Construction.	Water Supply.	Cooling.	Cleanliness.	Galls per day.		Where milk sold.
Great Bad low	Friars Hall ...	8	400	Vent. good Light bad	Cement (good)	Wood & brick	Sewer	—	Main	No	Only fair	15	Retail locally	Shed close to dwelling house and bad approach to main road.
"	Wood ...	12	550	Good	"	Brick	Cesspool	Brick	Well	Yes	Clean	20	London	Manure too close to shed. Direct communication between dairy and cowshed.
"	Reynolds ...	8	560	Vent. good Light poor	"	"	"	"	"	"	"	15	"	Good shed and dairy. Direct communication between dairy and house.
Little Bad low	Warren ...	25	778	Good	"	"	"	"	Spring	"	"	45	"	Good shed and dairy.
"	Hollybreeds ..	30	505	"	"	"	"	"	"	"	"	50	"	ditto
Boreham ...	Cheesehouse	30	572	"	"	Timber	"	Brick (good)	Grav. from spring	"	"	60	Waltham-stow	Very good dairy farm. Direct communication between dairy and barn.
"	Brickhouse ...	34	620	"	"	Brick	"	Timber (good)	"	"	"	68	Ilford	Good dairy farm. Manure too near shed.
"	Old Hall ...	32	511	"	"	Timber	Field ditch	"	Well	"	"	64	Retail in Boreham, Springfield, Chelmsford	Good dairy farm. Manure too near shed. Direct communication between dairy and shed.
"	Culverts ...	30	500	"	"	"	Manure yard	"	"	"	"	60	Forest Gate, London	Manure too near shed. Drainage to cesspool in hand. Direct communication between dairy and cowshed.
"	Mount Mascalls	22	479	"	"	Timber and brick	Cesspits	Brick (good)	Grav. from spring	"	"	44	Ilford	Drainage not satisfactory. Direct communication between dairy and barn.
"	Bungalow ...	21	446	"	Brick (fair) Cement (good)	Timber	"	Timber (good) Brick (not good)	"	"	"	42	Waltham-stow	Drainage not satisfactory.
"	Boreham Hall	24	600	"	"	"	Ditch	"	"	"	Fair	48	Forest Gate	Good dairy farm. Shed not clean at last inspection. Manure too near shed

Broomfield	...	Broomfield Hall	40	530	"	Brick (fair)	"	Cesspits	Brick (good)	Well in farm-yard.	"	Clean	98	London	Not a satisfactory dairy farm. Manure too near shed. Direct communication between dairy and cowshed.
"	...	Priors	46	560	Light fair Vent. good	Brick (good)	Brick & timber	Cesspool	Timber (good)	Well	Yes	Clean	92	Cambridge Heath and Chelmsford	Good dairy farm. Manure should not be stored in covered place between sheds. Direct communication between dairy and shed.
"	...	Patching Hall	63	600	Good	Cement (good)	Brick	"	Brick (excell't) Wood	"	"	"	126	Retail in Chelmsford London	Excellent dairy farm.
Buttsbury	...	Great Blunts	50	500	"	"	"	"	"	"	"	"	60	"	Manure too close to shed.
Chignall	...	Brittons Hall	19	1300	"	"	Timber	Ditch	Timber (fair)	"	"	"	40	Retail in Gt. Baddow	Not satisfactory. New drainage to cesspool in hand. Not long started. Can accommodate 32 cows.
Canbury	...	Ludgores	5	750	"	"	Wood	Cesspool	Wood	Spring	"	"	10	Southend	Good shed.
"	...	Rectory	5	431	Vent. good Light had	"	"	"	—	Main	No	"	8	Retail locally	ditto
"	...	Overshott	5	500	Good	"	—	Ditch	—	"	"	"	8	"	Manure too close to shed.
"	...	Poplars	6	366	"	"	Wood	"	—	Well	"	"	5	"	Shed in fair condition.
"	...	Belvedere	5	661	"	"	"	Cesspool	—	—	"	"	8	"	Manure too close to shed.
East Hanningfield	...	Rails	30	500	"	Brick (fair)	"	"	Brick	Main	Yes	"	50	Southend	ditto
"	...	Claydons	45	374	Bad	"	"	"	"	"	"	"	50	Ilford	Shed only fair.
West Hanningfield	...	Temple	45	356	Good	Cement (good)	Brick	"	Wood	Well	"	"	80	London	Manure too close to shed.

PARISH.	NAME OF FARM.	PARTICULARS OF COWSHEDS AND DAIRIES.											GENERAL REMARKS.	
		Cows.	Cubic feet per cow.	Light and Ventilation.	Cowshed Floor.	Cowshed Walls.	Cowshed Drainage.	Dairy Construction.	Water Supply.	Cooling.	Cleanliness.	Galls per day.		Where milk sold.
Ingatestone	Hall	26	1615	Good	Cement and Brick (good)	Brick & wood	Sewer	Brick	Spring	Yes	Clean	50	London	Good shed and dairy. Direct communication between dairy and cowshed.
"	Heybridge	30	700	"	"	"	Cesspool	Wood	Main	"	Fair	60	Ilford	Manure too close to shed.
"	Little Hyde	35	548	"	"	Wood	"	"	Well	"	Only fair	60	Southend	Manure too close to sheds. Direct communication between dairy and cowshed.
"	Elmfield	10	700	"	"	"	Sewer	"	Main	"	Clean	18	Ilford	ditto
"	Woodbarns	45	388	"	"	"	Cesspool	"	Well	"	"	75	London	Manure too close to sheds. Direct communication between dairy and cowshed.
"	Howletts	6	600	"	"	Brick	"	Brick	"	"	"	10	"	Manure too close to shed.
"	Pryerning Hall	20	800	"	"	Wood	"	Wood	Main	"	"	30	"	Good shed and dairy.
"	St. Leonards	6	490	"	Brick (fair)	"	"	At house	Well	No	"	10	Retail locally	Butter made chiefly.
"	Wells and Sheads	11	500	Vent. good	"	"	"	Wood	Spring	Yes	Fair	25	Ilford	Shed and dairy fair.
"	Lindsays	9	500	Light Good	Cement (good)	Brick	"	—	Well	No	Clean	15	Retail locally	Good shed.
Little Leighs	Leighs Priory	48	600	"	Brick (good)	Brick & timber	"	Brick & timber (good)	"	Yes	"	96	Stratford	Good dairy farm.
Margaretting	Brook	24	600	"	Cement (good)	Brick	"	Brick	Spring	Yes	"	40	London	Manure too close to shed. Direct communication between dairy and cowshed.
"	Copfold	20	900	"	"	Wood	"	"	"	"	"	20	Southend	Good shed and dairy.

Margaretting	Webb's	40	650	Bad	"	Brick	"	"	"	"	"	"	60	London	Shed and dairy fair.
Rettendon	The Elms	4	900	Good	"	"	"	—	Main	No	Fair	8	Retail locally	Good shed.	
"	Rawlings	9	500	"	"	Wood	Catchpit	Wood	"	Yes	"	8	Southend	Manure too near shed.	
"	Whitehouse	16	355	Good	Cement (good)	Wood	Cesspool	Wood	Main	Yes	Clean	25	Retail locally	Manure too near shed.	
"	Millhouse	20	400	Bad	"	"	Ditch	Brick	"	"	Fair	35	"	Poor sheds. No cesspool and manure too close to shed.	
"	Rettendon	30	900	Good	"	Brick	Cesspool	"	"	"	Clean	60	Ilford	Good shed and dairy.	
"	Gosses	8	500	"	Brick (fair)	Wood	Ditch	—	"	No	"	7	Retail locally	Manure too close to shed.	
"	Hyde Hall	60	550	"	Cement (good)	"	Cesspool	Brick	Spring	Yes	"	100	London	Good shed and dairy.	
"	Curds	9	500	Bad	Brick (fair)	"	"	At house	Main	"	Only fair	14	Southend	This shed and drainage is being re - constructed. Direct communication between dairy and house. Very good dairy farm.	
Roxwell	Elm	23	538	Good	Cement (good)	Timber	"	Timber (good)	Well	"	Clean	46	Retail in Chelmsford	Good dairy farm. Manure too near shed.	
"	Lightfoots	9	534	"	"	"	"	Timber (excellent)	"	"	"	18	Retail in Roxwell & Chelmsford	Good dairy farm. Manure too near shed.	
Sandon	Sandon Hall	40	350	Fair	"	Wood	"	Wood	Spring	"	Fair	60	London	Manure too close to shed.	
"	Sandon Lodge	12	560	Good	"	"	"	Brick	Main	"	Clean	20	Chelmsford	Ditto	
"	Mill Hill	5	500	"	"	Brick	"	"	"	"	"	8	Retail locally	Good shed.	
"	Grove	30	500	Good vent. Light fair	"	Wood	"	At house	"	"	Only fair	50	London	Manure too close to shed. Direct communication between dairy and house.	



## PARTICULARS OF COWSHEDS AND DAIRIES.

PARISH.	NAME OF FARM.	Cows.	Cubic feet per cow.	Light and Ventilation.	Cowshed Floor.	Cowshed Walls.	Cowshed Drainage.	Dairy Construction.	Water Supply.	Cooling.	Cleanliness.	Galls per day.	Where milk sold.	GENERAL REMARKS.
Springfield	Springfield Hall	30	567	Good	Cement (good)	Brick	Reservoir	Brick (good)	Well	Yes	Fair	60	Retail in Chelmsford	Good dairy farm. Dairy not kept clean.
"	Springfield Lyons	10	564	"	Brick & Cement (good)	Timber	Cesspool	No dairy	y at the farm.			20	"	Good dairy farm.
"	Holders	20	500	"	Brick (good)	"	Cesspit	Brick (excell't)	Main	Yes	Fair	40	Retail in Springfield & Chelmsfd	Good dairy farm. Drainage not trapped. Manure too near shed.
Stock	Fristling Hall	30	550	"	Cement (good)	—	Cesspool	Wood	Well	"	Clean	60	London	Manure too close to shed.
"	Crondon Park	35	460	"	"	Brick	"	Brick	Spring	"	"	45	"	1 shed only in use. Manure too close to shed. Direct communication between dairy and cowshed.
"	Crondon Hall	40	500	"	"	"	"	"	Well	"	"	70	"	Good shed and dairy fair. Direct communication between dairy and house.
"	Old Barns	20	660	"	"	Wood	"	"	—	"	"	35	"	Fair shed.
"	Forest Lodge	50	300	"	"	Brick	"	Brick	Well	"	"	100	"	Manure too close to shed. Direct communication between dairy and house.
"	Bellmans	16	500	Vent. good Light bad	Brick (fair)	Wood	"	At house	"	"	Fair	30	Retail locally	Ditto
"	Brookmans	2	1000	Good	"	"	"	—	"	No	"	4	"	Manure too close to shed.
"	Kings Head	8	500	"	"	Brick	"	—	"	"	"	16	Billericay	Ditto
Little Waltham	Rolphs	14	500	"	Cement (good)	Brick & timber	Cesspit	Brick (good)	Well	"	"	28	Retail in Gt. & Little Walthams	Good dairy farm. Drainage not trapped. Manure too near shed.

Widford	...	Widford Hall	54	543	"	"	Brick	Cesspool	"	"	Yes	"	108	Stepney & Chelmsford	Good dairy farm. Cesspool too near shed. Cesspool overflows to roadside ditch.
"	...	Elm	46	500	"	"	Timber	"	"	"	"	"	92	Retail in Chelmsford	Very good dairy farm. Manure too near shed.
Woodham Ferris	...	Rosewarne	37	700	Good	Cement (good)	Brick	Cesspool	Brick	Well & Main	Yes	Clean	60	London	Management of shed and dairy excellent.
"	...	Woodham Hall	25	300	Fair	"	Wood	"	House	Main	"	Fair	35	Southend	Low lying farm. Direct communication between dairy and house.
"	...	Fenn	14	700	"	"	"	"	Wood	Well	"	"	6	London	Low lying farm. Direct communication between dairy and cowshed.
"	...	Hamberts	22	500	Good	"	—	"	Brick	Main	"	Clean	40	"	Manure too close to shed.
"	...	Birketts	38	300	"	Brick (good)	Wood	"	"	"	"	"	40	"	Shed good.
"	...	Ilgars	30	300	"	Cement (good)	Wood	"	Wood	Well	"	"	50	"	Manure too close to shed.
"	...	Leighams	16	280	Fair	Brick (fair)	"	"	"	Main	"	Fair	25	Southend	Sheds only fair and drains are not trapped.
"	...	Edwins Hall	20	700	Good	Cement (good)	"	"	Brick	Well	"	Clean	40	London	Manure too close to shed.
"	...	Priory	8	600	"	"	"	"	Wood	"	"	Fair	10	Southend	Shed and dairy fair. Direct communication between dairy and cowshed.
"	...	Wantz	8	500	"	"	"	"	—	Main	No	Clean	15	Part retail & Southend	Dairy to be constructed. Shed good.
"	...	Town	16	700	"	"	"	"	Brick	"	Yes	Fair	7	Southend	Manure too close to shed.
"	...	Sevenacres	4	500	Vent. good Light bad	Brick (good)	"	Ditch	—	"	No	Only fair	6	"	Poor shed and manure too close to shed.
"	...	Potters	9	470	Good	Cement (fair)	"	Cesspool	—	"	"	Fair	15	"	Poor shed.

PARISH.	NAME OF FARM.	PARTICULARS OF COWSHEDS AND DAIRIES.											GENERAL REMARKS.	
		Cows.	Cubic feet per cow.	Light and Ventilation.	Cowshed Floor.	Cowshed Walls.	Cowshed Drainage.	Dairy Construction.	Water Supply.	Cooling.	Cleanliness.	Galls per day.		Where milk sold.
Woodham Ferris	The Grange...	6	600	Good	Brick (fair)	Wood	Cesspool	Wood	Main	Yes	Clean	10	Southend ...	Shed and dairy fair. Direct communication between dairy and house. Manure too close to shed.
"	Dyers	5	600	"	Cement (good)	"	"	—	"	"	"	10	"	"
Writtle	Lordship	26	500	Light fair Vent. good	"	Brick	"	Brick (good)	Well	"	Fair	52	Retail in Writtle	Good dairy farm. Manure too near near shed. Direct communication between dairy and cowshed.
"	Dawes	6	473	Good	"	Timber	Field ditch Cesspool	"	Main	No	Clean	12	"	Good dairy farm. Manure too near sheds.
"	Victoria Road Dairy	8	520	"	"	"	"	Timber (good)	"	"	"	16	"	Not satisfactory. Manure disposal causes a nuisance.
"	Rollstones	46	1-810 2-500	"	"	"	"	"	Well	Yes	"	92	Stratford ...	Good dairy farm. Manure too near shed.
"	Reeds	28	500	"	"	Brick	"	Brick, timber & plaster'd walls (excellent)	"	"	"	56	Chelmsford	Good dairy farm.
"	Bulmers	8	759	"	"	Timber	"	"	Main	"	"	16	Retail in Writtle	Excellent dairy farm.
"	Moor Hall	34	500	"	"	"	"	Timber (good)	Well	"	"	68	—	Good dairy farm. Direct communication between dairy and barn.
"	Jubilee	9	733	"	"	"	"	"	"	"	"	18	Retail in Chelmsford	Not satisfactory. Manure disposal causes a nuisance.

**MILK (MOTHERS AND CHILDREN) ORDER, 1918.** The District Council supplied milk under this Order as stated under the Maternity and Child Welfare portion of the report.

**MEAT.** With 14 private slaughter-houses it is impossible to inspect in a large Rural District, all carcasses, but since the second Inspector of Nuisances took up duty in July an attempt has been made to visit the slaughter-houses on the days slaughtering usually takes place. Fortunately tuberculosis is not common among the animals slaughtered. During the year only one carcass was condemned. Proper supervision could only be carried out if a public abattoir was provided.

The conditions of the existing slaughter-houses are given in the table on page 39—two of these are licensed, one at Little Waltham and Martin's at Ingatestone, all the others are registered.

The following tabular statement gives the number of slaughter-houses in use in the district on the date mentioned:—

		In 1914.		In Jan. 1920.		In Dec., 1920.
Registered	...	15	...	12	...	12
Licensed	...	3	...	2	...	2
		<hr/>		<hr/>		<hr/>
		18		14		14
		<hr/>		<hr/>		<hr/>

**OTHER FOODS.** During the year on two occasions the fore-quarter of imported beef was condemned. The difficulty of systematic inspection of home killed meat has already been referred to.

**THE SALE OF FOOD AND DRUGS ACT** is administered by the County Council, particulars of which are not transmitted to the District Council.



# LIST OF SLAUGHTER-HOUSES AND PARTICULARS.

Situation.	Construc- tion.	Floor.	Drainage.	Water Supply.	Collection of Offal and Manure.	Any Dwelling house within 100 feet.	Provision for Cattle with water.	Remarks.
Great Baddow (Copsey)	Timber (fair)	Flag stones (fair)	Sewer	Main	Manure removed once a week. Offal once a day.	Yes	2 pens with water	The manure pit has not a cover.
Boreham (Emeny)	Timber (good)	Cement (good)	To cesspool	Well	Manure once a week. Offal each time of killing.	"	2 pens	No manure pit.
Broomfield (Busey)	Brick (good)	"	To sewer	"	Manure once a month. Offal put in manure pit.	"	1 pen	The manure pit has not a cover.
Broomfield (Wright)	Timber (good)	"	To ditch in gardens	"	Manure and offal put in ditch.	No	Nil.	No manure pit.
Danbury (Croxon)	Timber (fair)	Flag stones (fair)	To ditch	Main	Both removed once a day.	Yes	1 pen with water	Construction and drain age not satisfactory.
High Street, Ingatstone (Green)	Brick (good)	Cement (good)	Sewer	"	Both removed once a day.	"	2 pens with water	Very near a number of houses, including a bakehouse.
High Street, Ingatstone (Martin)	"	"	"	"	Both removed after slaughtering.	"	1 pen	Only pig killing.
Great Leighs (Wright)	Timber (good)	Brick (good)	To ditch	Well	Put on manure heap.	"	1 pen	No manure pit.
Stock (Green)	Brick (good)	Cement (good)	Cesspool	Well & Pump	Removed after slaugh- tering.	"	2 pens with water	Only used occasionally.
Little Waltham (Campan)	"	"	To sewer	Main	Put upon manure heap.	"	2 pens	No manure pit.
Little Waltham (Wroot)	Timber (good)	"	"	"	Ditto	"	2 pens	Ditto
+Great Waltham (Snow)	Timber (good)	Cement (good)	None	Public tap in road	Removed every day at time of killing.	"	Nil	Very unsatisfactory.
Great Waltham (Lucking)	Timber (good)	Cement (good)	To sewer	Public spout	Put upon manure heap.	"	2 pens	No manure pit.
Writtle (Green)	"	"	"	Main	Removed to manure heap.	"	2 pens	Ditto

+At Great Waltham (Snow) the slaughter-house is only a covered yard at the back of a dwelling house in which a few pigs are slaughtered weekly. There is no proper drainage. The construction is anything but satisfactory, but every care is taken to prevent a nuisance occurring. The matter is at present under the consideration of the Sanitary Committee.



## PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

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During the year 75 cases (including Tuberculosis) were notified.

The number of cases classified according to disease, age, removal to hospital, is shown on page 41, and the table on page 42, classifies them according to locality.

The table on page 45 gives the number of cases annually, of the principal infectious diseases, with the number of deaths since the year 1901.

The incidence and mortality of some of the diseases has considerably altered compared with fifty years ago.

Fifty years ago the number of deaths from Scarlet Fever was much higher than it is now, this was due not to the greater incidence of Scarlet Fever, but because of a greater mortality among those who contracted the disease, for then 1 in 6 of those attacked died, whereas now only 1 in 100 or even 200 proves fatal.

The number of deaths from Diphtheria has considerably lessened, not due to the lessened incidence of the disease, but to improved method of treatment; for instance 40 years ago of those contracting Diphtheria 1 in 2 or 3 proved fatal, whereas now 1 in 7 or 10, and if antitoxin was administered earlier in more cases this latter figure would be considerably improved upon—the delay is mainly due to the parents not calling in medical aid early.

Typhus Fever 50 years ago was prevalent in this country, to-day it is practically unknown.

Typhoid Fever 50 years ago killed a large number of the population due to the prevalence of the disease, whereas during

**TABLE II.**  
RURAL DISTRICT OF CHELMSFORD.  
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1920.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years.							
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and over.	
Scarlet Fever ...	28	...	7	17	3	1	...	...	22
Diphtheria ...	11	...	3	6	2	...	...	...	8
Influenzal-Pneumonia ...	1	...	...	1	...	...	...	...	...
Puerperal Fever ...	1	...	...	...	1	...	...	...	...
Malaria ...	1	...	...	...	1	...	...	...	...
Erysipelas ...	3	...	...	...	...	1	...	1	...
Ophthalmia Neonatorum ...	4	4	...	...	...	...	...	...	...
Enteric Fever ...	1	...	...	...	1	...	...	...	...
Pulmonary Tuberculosis ...	23	...	...	2	7	8	4	2	...
Other forms of Tuberculosis ...	2	...	...	...	2	...	...	...	...
Totals ...	75	4	10	26	17	10	5	3	30

DISTRIBUTION OF INFECTIOUS DISEASES DURING THE  
YEAR 1920.

	Scarlet Fever.	Diphtheria.	Influenzal Pneumonia.	Enteric Fever.	Puerperal Fever.	Malaria.	Erysipelas.	Ophthalmia.	Polio-myelitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Total.
<i>Ingatstone Sub-District</i>												
Stock & Buttsbury...	1	2	0	1	0	0	0	0	0	4	0	8
East Hannigfield...	0	0	0	0	0	0	0	0	0	0	0	0
West Hanningfield...	0	0	0	0	0	0	0	0	0	0	0	0
South Hanningfield..	0	0	0	0	0	0	0	0	0	0	0	0
Ingatstone & Fryerning ...	1	0	0	0	0	0	0	0	0	2	0	3
Margaretting ...	3	0	0	0	0	0	0	0	0	0	0	3
Rettendon ...	2	0	0	0	0	0	0	1	0	0	0	3
Runwell ...	0	0	0	0	0	0	0	0	0	0	0	0
Woodham Ferris ...	2	0	0	0	0	0	0	0	0	1	0	3
Danbury ...	0	1	0	0	0	0	0	0	0	2	0	3
Great Baddow ...	7	5	0	0	0	1	0	0	0	0	0	13
Sandon ...	4	0	0	0	0	0	0	0	0	0	0	4
Springfield ...	0	0	0	0	0	0	0	0	0	1	0	1
Little Baddow ...	0	0	0	0	0	0	0	0	0	0	0	0
<i>Great Waltham Sub-District.</i>												
Boreham ...	1	0	0	0	0	0	0	0	0	2	1	4
Broomfield ...	0	0	0	0	0	0	0	0	0	1	0	1
Chignall ...	0	0	0	0	0	0	0	0	0	0	0	0
Good Easter ...	0	0	0	0	0	0	0	0	0	0	0	0
Great Leighs ...	2	0	0	0	0	0	0	0	0	1	0	3
Little Leighs ...	0	0	0	0	0	0	0	0	0	1	0	1
Great Waltham ...	1	0	0	0	0	0	2	0	0	3	0	6
Little Waltham ...	0	0	0	0	0	0	0	0	0	1	0	1
Mashbury ...	0	0	0	0	0	0	0	0	0	0	0	0
Pleshey ...	0	0	0	0	1	0	0	0	0	0	1	2
Widford ...	0	0	1	0	0	0	0	0	0	1	0	2
Writtle ...	4	3	0	0	0	0	0	3	0	2	0	12
Roxwell ...	0	0	0	0	0	0	1	0	0	1	0	2
Total ...	28	11	1	1	1	1	3	4	0	23	2	75

recent years the number of deaths are comparatively few, due to the fall in the incidence of the disease, for Typhoid Fever is still a dangerous disease to the individual patient.

This general improvement in the incidence and mortality of infectious diseases can, in part at least, be attributable to improved sanitation and progress in medical science. On the other hand there are two infectious diseases that kill to-day more persons than all the other infectious diseases put together, and is responsible for almost as many deaths as 30 or 40 years ago, and remarkable to state receive as little attention now as then, in fact they are treated by the public and parents alike with contempt. These two diseases do their mischief among the child population, and the death-rate varies considerably from year to year depending upon the absence or presence of epidemics—Measles and Whooping Cough are referred to. Has this neglect any connection with the fact that unlike most of the other infectious diseases, these two have not in the past to any appreciable extent interfered with the commercial activities of the community among which the epidemic occurred?

**SCARLET FEVER.**—28 cases came under observation as against 8 the previous year. Five were infected outside the district, and in two of these the nature of the illness was not suspected until other persons had been infected.

Two local limited epidemics, 4 cases in the parish of Sandon, and 10 in the parish of Great Baddow, were mainly due to mild unrecognised cases.

**DIPHTHERIA.**—During the year 11 cases were notified as against 33 the previous year. Five had been infected outside the district, a sixth was the child of the attendant at a Fever Hospital. The manner in which four got infected is instructive, and is given in more detail.

A child who had suffered from a fairly severe "sore throat" and followed by nasal discharge, was allowed outside his parents'

ouse where he joined in play with two children—the two a few days later was ill with Diphtheria. The first child referred to was soon well enough to visit his grandparents' house, which was some distance away, and here he joined in play with two children, and they also, a few days later, was suffering from Diphtheria. This child was thus responsible for the infection of four other cases which was supported by the bacterologist, who found that the nasal discharge contained the organisms of Diphtheria. After the segregation of the child, who was proving so infectious, no further cases occurred.

The District Council provide free of charge Diphtheria Antitoxin.

**ENTERIC FEVER.**—During the year only one case suffering from this disease came under observation. The patient worked outside the district, and there is every possibility that he was infected when away from his home.

Under the Public Health (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919, the Medical Officer of Health is given power to prevent a "carrier" of this disease from continuing at work connected with the preparation or handling of food or drink for human consumption.

**MEASLES.**—There was no prevalence during the year and no death was attributable to this disease.

**WHOOPING COUGH.**—Two deaths were attributable to this disease.

**MALARIA.**—Only one case was notified—the patient was suffering from a relapse. The original infection was contracted while abroad on active military service.

The District Council has undertaken to provide mosquito nets when this is considered necessary by the Medical Officer of Health, and to supply the necessary quinine when this is not otherwise available.



The following Table compares the number of cases and deaths from the principal infectious diseases year by year since 1901.

Year.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Smallpox.		Measles.		Puerperal Fever.		Tuberculosis.			
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Pulmonary.	Other forms.	Cases.	Deaths.
1901 ..	43	1	180	18	9	1	...	...	3	...	...	...	...	...	19	6
1902 ..	85	3	114	3	14	8	...	...	1	...	...	...	...	...	25	11
1903 ..	40	6	43	3	3	1	...	...	1	...	1	...	...	...	24	7
1904 ..	48	...	9	...	5	1	1	1	2	...	...	...	...	...	17	8
1905 ..	91	1	14	1	3	1	...	...	1	...	...	...	...	...	22	9
1906 ..	71	1	29	3	5	1	...	...	1	...	1	...	...	...	16	6
1907 ..	79	1	31	3	5	...	...	...	2	...	...	...	...	...	20	8
1908 ..	44	1	6	...	1	...	...	...	4	...	...	...	...	...	19	4
1909 ..	36	...	7	1	...	...	...	...	...	...	1	...	...	...	21	5
1910 ..	90	1	21	...	1	1	...	...	...	...	...	...	...	...	15	2
1911 ..	24	...	49	2	2	...	...	...	2	...	...	...	...	...	32	6
1912 ..	41	...	23	3	2	...	...	...	...	...	...	...	...	...	15	2
1913 ..	17	...	3	...	1	...	...	...	...	...	...	...	...	...	9	3
1914 ..	67	...	14	...	3	1	...	...	4	...	...	...	...	...	13	4
1915 ..	50	3	25	...	1	...	...	...	8	...	...	...	...	...	16	2
1916 ..	42	5	9	4	1	...	...	...	4	...	1	1	...	...	21	4
1917 ..	24	...	11	2	...	1	...	...	1	...	...	...	...	...	32	5
1918 ..	15	...	7	...	3	1	...	...	69	...	...	...	...	...	26	3
1919 ..	8	...	32	1	1	...	...	...	302	...	...	...	...	...	19	4
1920 ..	28	...	11	2	1	...	...	...	55	...	2	2	...	...	18	7
									...		1	1	...	...	23	4

DYSENTERY, TRENCH FEVER, TYPHUS, AND RELAPSING FEVER.—No case came under observation.

ACUTE PRIMARY AND INFLUENZAL PNEUMONIA.—Only one case came under observation. During the month of March severe colds occurred among school children in the parish of Little Waltham, and as a precautionary measure the School was closed for two weeks.

RABIES.—No case occurred during the year.

ANTHRAX.—Cases of Anthrax occurred among a dairy herd but no person got infected. The milk was sold outside the district. The Medical Officer of Health in whose district the milk was distributed, was advised of the occurrence of Anthrax among the dairy herd.

ACUTE POLIOMYELITIS AND ENCEPHALITIS.—No case came under observation during the year.

TUBERCULOSIS.—Medical Practitioners have a tendency to delay notifying Pulmonary Tuberculosis cases until tubercle bacilli are found in the sputum; at such a stage the disease is comparatively advanced. During the year 25 cases were notified for the first time. These are classified according to locality in table on page 42, and according to age on page 41.

SMALL POX.—During the year no cases occurred.

CONDITIONS AS TO VACCINATION.—As it is not possible to give the conditions of vaccination for the Rural District alone, the following table gives the figures for the years 1905-1918 (inclusive) for the Rural District and the Springfield portion of the Borough of Chelmsford; in the latter there is an average of about 60 births per annum.

The figures clearly demonstrate how vaccination has been neglected within recent years.

Year.	No. of Births registered Jan 1st to Dec. 31st.	No. successfully vaccinated.	No. insusceptible of vaccination.	No. of conscientious objections received.	Percentage of objectors to No. of births.	Percentage of successful vaccinations or insusceptible.
1905	458	415	1	14	3 per cent.	90 per cent.
1906	442	388	0	13	3 "	84 "
1907	452	393	0	23	5 "	86 "
1908	489	386	0	67	14 "	76 "
1909	453	354	0	58	12 "	78 "
1910	445	308	0	98	22 "	69 "
1911	462	296	0	126	25 "	64 "
1912	468	296	1	135	27 "	61 "
1913	591	314	2	207	35 "	53 "
1914	508	301	0	181	35 "	59 "
1915	516	297	0	178	32 "	57 "
1916	515	283	0	199	38 "	54 "
1917	431	215	0	154	35 "	40 "
1918	413	216	0	145	35 "	51 "
1919	383	180	1	156	40 "	46 "

The sum of the last two columns does not come to 100 owing to deaths, removal, etc., before vaccination or certificate of objection was necessary.

## DISINFECTION.

At the Isolation Hospital there is a steam disinfecter (steam under pressure), and the District Council have made arrangements with the Hospital Board for the latter to carry out the disinfection of clothing, bedding, etc.

The Inspectors of Nuisances carry out disinfection of rooms in the home after removal, recovery, or death of a patient suffering from an infectious disease.

### MATERNITY AND CHILD WELFARE.

A Committee has been appointed, consisting of ten members (including two lady members).

The scheme includes the appointment of a Health Visitor who visits all infants and children under five years of age, and gives advice when required to expectant mothers.

There are six clinics in different parts of the district. These are held monthly at 2.30 p.m., as follows:—

Writtle, on the first Thursday in the month.

Broomfield, on the second Thursday in the month.

Fryerning, on the third Thursday in the month.

Great Baddow, on the fourth Thursday in the month.

Galleywood, on the second Tuesday in the month.

Ingatestone, on the fourth Wednesday in the month.

At these clinics a short address is given to the mothers about the care of their own and their babies' health, the need for fresh air, etc. Patterns for babies' garments are also cut out and given to the mothers. These are much appreciated.

The Medical Officer of Health has been appointed Medical Officer to the Infant Clinics in the district.

Local interest in this work is undoubtedly increasing, two new districts, namely Great Waltham and Great Leighs, decided to start a clinic to be held monthly in their respective areas

The average attendance at the clinics during the year was as follows:—

Broomfield	14	...	Writtle	10
Fryerning	14	...	Ingatestone	14
Galleywood	13	...	Great Baddow	16

Ante-Natal attendances, 8.

Dried Milk, etc. is supplied to the mothers at cost price. For this purpose, the Council has granted £5 petty cash to the Health Visitor, as these goods have to be paid for promptly and are sold gradually. As they are sold at a sum much below the retail price, they are greatly appreciated.

Free Milk is granted to mothers and children when considered desirable. During the year 14 Nursing mothers and infants have had free milk supplied to them. Only three were receiving it at the end of the year.

The Health Visitor is available to make enquiries relating to Measles; she also visits and advises Tuberculosis cases notified, for which she is paid a separate salary. Very few cases of Measles, Whooping Cough, and Epidemic Diarrhoea among children under five years of age came under observation in 1920.

Four cases of Ophthalmia Neonatorum have been notified during the year. These were all very slight cases, and recovered without permanent injury to the eyes. One case of Puerperal Septicæmia was notified. This case died in Hospital.

The arrangement made with Chelmsford General Hospital in May, 1919, has been continued throughout the year.

The Hospital agrees to admit :—

Infants under five years of age requiring in-patient treatment.

Expectant mothers, for instance, for Cæsarean section.

Mothers suffering from serious complications arising after parturition.

Mothers and children under five years of age to the Dispensary for advice and treatment.

For the above facilities, the District Council pays to Chelmsford General Hospital an annual grant of £10 10s., and 10s. per week during the period a patient is in Hospital.



During 1920, the Hospital rendered the following services :—

6 operations (Tonsils and Adenoids).

1 case (Complications arising after parturition).

1 case (Persistent temperature after confinement).

During the year the Health Visitor made :-

395 Primary visits.

661 Re-visits.

Of the visits :—

6 were made to expectant mothers.

917 to infants under one year of age.

128 to children between one and five years of age.

As Miss Millard left to take up a colonial appointment the district was without a Health Visitor for some weeks when Miss Nellie S. Bass, Certified Midwife and Health Visitor, took up duty on 6th September, 1920.

590 births were registered during the year, and 487 were notified under the Notification of Births Act.

Of the 487 births notified :—

148 were attended by Medical Practitioners.

339 were attended by Midwives.

Seven still-births were notified. These cases were investigated, and found to be due to normal causes.

The general condition of the infants, mothers and young children is very good indeed, both as regards nutrition and clothing, and where there is any difficulty the mothers usually ask for, and appear anxious to follow the advice of the Health Visitor, whose welcome in the homes is all that can be desired.

As far as possible, the educational and preventative side of the work receives the most attention, cases of sickness or disease being referred to a medical advisor.

Ignorance in baby management is not confined to any particular social class, the better off and well educated mother sometimes needs and appreciates advice more than the poorer one.

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## SANITARY ADMINISTRATION.

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The Rural District Council consists of 32 elected members. The Council meets monthly after the sitting of the Board of Guardians. There are several committees dealing with Public Health matters, each of which meets once a month, on the Friday preceding a Council Meeting. The Committee's reports are presented at the next Council meeting.

### LIST OF COMMITTEES.

Finance Committee, Buildings and Works Committee, and Sanitary Committee, of which the Rev. C. Edmunds is chairman, comprises 10 members.

Danbury and six other parishes Waterworks Committees.

Writtle and Ingatestone Drainage and Water Supply Committee.

Great Baddow Drainage and Water Supply Committee.

Broomfield Drainage and Water Supply Committee.

The Housing Committee.

Maternity and Child Welfare Committee (including two lady members).

The Council is represented on the :—

Chelmsford Joint Sewerage Committee.

Chelmsford Joint Hospital Board.

South-East Essex United Districts (Medical Officer of Health) Committee.

The Council Offices in Waterloo Lane consist of a large Committee room, two rooms for the Surveyor's Department, one room for the Sanitary Inspectors and Highways Surveyor respectively, one room for the Health Visitor, and one fitted up as office and Laboratory for the Medical Officer of Health for which the Joint Committee pay an annual rent of £25.

Agenda papers are sent out before each meeting of the Council, and the minutes of the Council Meetings are printed and distributed.

#### STAFF.

The staff consists of—

John F. Macdonald, M.D., D.P.H., Medical Officer of Health, who is also Medical Officer of Health for the Maldon and Rochford Rural Districts.

Miss Olive H. Gowers, Clerk to the Medical Officer of Health.

Miss Nellie S. Bass, Health Visitor, who is a Certified Midwife and Health Visitor.

William Edser, Inspector of Nuisances (certificated) and Housing.

Bertram G. Ellis, Inspector of Nuisances (certificated) and Housing. (Took up duty on 5th July, 1920).

James Dewhirst, A.M.I.M.E., Engineer, Surveyor and Housing Architect.

T. T. Thomas, Assistant.

J. H. Goodridge, Assistant.

The Inspectors of Nuisances are also Inspectors under the Housing and Town Planning Act, 1909, with such a large population and extended area, the duties were more than one man could reasonably carry out with efficiency.

The District Council considered the matter carefully and decided to divide the district into two areas as follows:—

*North Area.*

Parishes.	Area in Acres.	Pop. at Census, 1911.
Boreham ...	3801	881
Broomfield ...	2332	1209
Chignall ...	2027	370
Good Easter ...	1987	454
Great Leighs ...	3146	643
Little Leighs ...	1079	116
Mashbury ...	897	159
Pleshey ...	732	262
Roxwell ...	4781	714
Springfield ...	2268	482
Great Waltham ...	7451	2063
Little Waltham ...	2309	640
Widford ...	680	355
Writtle ...	8427	2649
14 Parishes ...	41917	10997

*South Area.*

Parishes.	Acres in Acres.	Pop. at Census, 1911.
Great Baddow ...	3910	2582
Little Baddow ...	2756	545
Buttsbury ...	2113	697
Danbury ...	3494	1008
East Hanningfield ...	2682	452
South Hanningfield	1488	230
West Hanningfield...	2838	441
Ingatestone & Fryerning	4132	1915
Margaretting ...	2284	677
Rettendon ...	3758	835
Runwell ...	2070	316
Sandon ...	2407	524
Stock ...	2723	587
Woodham Ferris ...	4497	984
14 Parishes ...	41152	11794

NOTE. With the above division the two Inspectors have not to travel the same road any occasion.

Mr. W. Edser was appointed Inspector of Nuisances for the North Area at an inclusive salary of £260 per annum.

Mr. B. G. Ellis was appointed Inspector of Nuisances for the South Area at an inclusive salary of £250 per annum.

The whole of the work in connection with the Council's Scavenging Scheme is carried out by Mr. W. Edser.

### HOSPITAL ACCOMMODATION.

Accommodation is provided for both the Borough and the Rural District by the Chelmsford Joint Hospital Board. The Hospital for ordinary infectious diseases situated in Great Baddow consists of administrative block, a 14-bed pavilion, a 7-bed pavilion and the necessary out-houses (wash-house, laundry, disinfector, mortuary, &c).

During 1915 the Military Authorities erected at the Isolation Hospital an asbestos pavilion of the most modern type to accommodate 22 patients, which the Hospital Board purchased.

During the year the Hospital Board provided a motor ambulance to replace the horse one.

Accommodation for Small Pox cases is provided by a 4-bed Hospital (wood and iron) situated at Galleywood.

The staff of the Hospitals is separate and distinct from that of the Rural District.

The following are the special local Orders, Regulations and General Adoptive Acts in force in the district.

**URBAN POWERS.** The Council has the following Urban Powers :—



*Conferred by the L.G.B., April 8th, 1880, under  
Public Health Act, 1875.*

Section.	Subject.	Parishes to which powers apply.
20.	... Plans of Sewers. (Special expenses)	Great Baddow, Ingate- stone and Fryerning.
26.	... Building over Sewers.	Widford, Great and Little Waltham.
44.	... "Cleansing" Bye-laws.	The whole district.
45.	... Receptacles for rubbish.	Writtle.
47. <sup>2 3</sup>	... Nuisances on premises.	Ingatestone and Fry- erning.
157. <sup>2-3-4</sup>	... Building Bye-laws.	... The whole district.
158.	... Building Bye-laws, contravention of.	" "
169. <sup>2-3</sup> , 170	... Slaughterhouses, regu- lation of	Great Baddow, Bore- ham, Broomfield, Buttsbury, Danbury, Good Easter, West Hanningfield, Ingate- stone and Fryerning, Gt. Leighs, Pleshey, Roxwell, Stock, Great and Little Waltham, Widford, Woodham Ferris, Writtle, and Springfield Rural.

*Conferred by order of L.G.B., 20th July, 1887.*

42.	... Removal of house re- fuse, etc. (declared special ex- penses, 26th Jan- uary, 1900).	Great Baddow s.d.d., Ingatestone and Fry- erning, Springfield.
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*Conferred by order of L.G.B., June 3rd, 1892.*

Section.	Subject.	Parishes to which powers apply.
157. <sup>1</sup>	... Bye-laws relating to width of streets	The whole district.
161. <sup>1</sup>	... Lighting streets ...	Great Baddow, Ingat- stone and Fryerning, Writtle, Widford, (1909).

*Conferred by L.G.B., January 18th, 1894.*

112, 113, 114,	Offensive trades, regu-	Great Baddow s.d.d.
115	lation of.	Broomfield, Ingat- stone and Fryerning, Great and Little Waltham, Writtle.
	(special expenses)	

*Conferred February 28th, 1895.*

197.	... Provision of offices ...	The whole district.
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*Conferred March, 1896.*

20.	... Map of sewerage system (special expenses) ...	Writtle.
25.	.. Building houses with- out drains (special expenses)	Great Baddow s.d.d., Ingatstone & Fryern- ing, Widford, Writtle.
26. <sup>1</sup>	... Building houses over sewers (special expenses) ...	Writtle.
39.	... Providing public necessaries (special expenses)	Great Baddow s.d.d., Broomfield, Stock, Great and Little Waltham, Writtle.
47. <sup>2</sup>	... Stagnant water under houses (special expenses)	

Section.	Subject.	Parishes to which powers apply.
47. <sup>3</sup>	... Allowing cesspools, &c., to overflow (special expenses)	Great Baddow s.d.d., Broomfield, Stock, Great and Little Waltham, Writtle, Ingatestone and Fry- erning, Widford.
160. <sup>3</sup>	... Ruinous buildings ... (special expenses)	The whole district.

*Conferred January 26th, 1900.*

42.	... Removal of house refuse, &c.	Broomfield, Little Waltham, Great Wal- tham (March 8th, 1902), Writtle s.d.d. and Widford (24th June, 1914).
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*Conferred October 12th, 1905.*

26. <sup>1</sup>	... Building houses over sewers (special ex- penses)	Writtle s.d.d.
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*Conferred August 23rd, 1907.*

161. <sup>1</sup>	... Street Lighting (special expenses)	... Margaretting. Widford (24th June, 1914).
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*Adoptive Acts.*

Infectious Disease Notifica- Came into force, 1st January,  
tion Act, 1889. 1890.

Infectious Disease (Pre- Came in force April 1st, 1891.  
vention) Act, 1890.

Public Health Acts Amend-  
ment Act, 1890 (Part III).

Came in force April 1st, 1891,  
for the whole district. Relating  
to Bye-laws as to (1) water  
closets, (2) structure of floors  
and height of rooms, (3) paving  
of yards, (4) secondary means  
of access for removal of house  
refuse.

Public Health Acts Amendment  
Act, 1907.

Adopted June, 1912.  
For the whole district.

Relating to Streets and Buildings    Secs. 15, 16, 20, 22, 23, 24, 27, 29,  
30, 31, 32 and 33.

Sanitary provisions    ...    Secs. 34, 35, 36, 37, 38, 43, 44, 45,  
46, 48, 49.

Infectious Diseases    ...    Secs. 52, 53, 54, 55, 56, 57, 58, 59;  
60, 62, 63, 64, 65, 67.

For Great Baddow s.d.d., Ingatestone and  
Fryerning, Widford and Writtle s.d.d.

Sanitary provisions    ...    Secs. 39, 40, 41 and 42.

Great Baddow Special Drainage District formed by Local  
Government Board Provisional Order, April 29th, 1876.

Writtle Special Drainage District formed by Local  
Government Board Provisional Order, July 9th, 1898.

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*Bye-laws and Regulations Adopted.*

1. Relating to the cleansing of footways, removal of house refuse, cleansing cesspools, &c.    Applicable to all the district except Great Baddow, Great and Little Waltham, Broomfield and Writtle, 1894.
2. Relating to Nuisances    ...    Whole district, 1894.
3. Relating to New Streets and Buildings    Apply to whole district. Adopted 1914, the older 1903 series being repealed.

- |   |   |
|---|---|
| 4. Relating to Slaughter-houses                 | Apply to all districts, save a few of smaller parishes, 1894.   |
| 5. Relating to Offensive Trades                 | Apply to Great Baddow s.d.d., Broomfield, Ingatestone and Fryerning, Great and Little Waltham and Writtle, 1894 |
| 6. Regulations under Dairies and Cowsheds Order | Apply to whole district. Adopted in 1906 to replace older regulations.  |
| 7 Relating to Tents, Vans, and Sheds            | Adopted 1909, and apply to the whole district.  |

Chemical and Bacteriological work for infectious diseases was contracted for by the County Council.

Water Analysis was undertaken by the District Council.

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## HOUSING.

A large number of houses in the district is suffering from the effects of "old age." This is more marked in purely rural areas where the rents have been so low that owners were unable or reluctant to carry out repairs.

In last year's report I estimated that about 500 new houses were required for the district—what effect unemployment will have upon the present needs is difficult to estimate, but if the industrial depression continues, the demand for houses in the district will become less urgent.

To meet the need of new houses, the Housing Commissioner agreed for the Council to erect 400 houses, and at the end of 1920, the schemes had advanced as shown in the following tabular statement:—



Stage.	Totals.	Number of Houses in							
		Sandon.	Danbury.	Great Baddow Village.	Ingatestone.	Writtle.	Good Easter.	Galleywood.	Woodham Ferris.
Commenced .. ...	87	4	9	16	30	10	2	12	4
Foundations in and damp course laid	55	4	7	16	—	10	2	12	4
First floor joists laid .. ..	32	4	2	12	—	4	—	10	—
Water plate laid, ready for roof	30	4	—	12	—	4	—	10	—
Roofed in, windows fixed, floors laid, ready for plastering ...	12	4	—	4	—	—	—	4	—
Completed, ready for occupation ...	4	4	—	—	—	—	—	—	—

In addition, 36 houses were erected by private individuals, particulars of localities is given in the table on page 61. The same table shows the number of houses erected in each parish annually since 1901.

During the year certificates were granted to private persons constructing houses under the Housing (Additional Powers) Act, 1919, relating to the following houses classified according to locality :—

Certificate.	Great Baddow.	Little Baddow.	Boreham.	Broomfield.	Buttsbury.	W. Hanningfield.	S. Hanningfield.	Ingatestone.	Rettendon.	Roxwell.	Runwell.	Stock.	Woodham Ferris.	Writtle.	Totals.
A	3	4	1	1	9	4	3	1	4	2	5	1	1	2	41
B	1	1	1	1	6	1	1	1	1	—	—	—	—	1	15

Certificate 'A' is "certificate of approval of proposal to construct houses under Section 1 of the Housing (Additional Powers) Act, 1919."

Certificate 'B' is "certificate that houses constructed under Section 1 of the Housing (Additional Powers) Act, 1919, have been completed in a proper and workmanlike manner."

OVERCROWDING. — There is overcrowding owing to the limited number of houses, and also due to large families living in houses with only two bedrooms.

This is due to the fact that the number of houses with more than two bedrooms is very limited, and partly because tenants are unable or unwilling to pay a higher rent.

As no alternative accommodation was available, it was almost impossible to take any active measures to abate overcrowding—one case was so bad that a notice was served which resulted in the nuisance being abated.

#### HOUSES ERECTED FROM 1901 TO 1920.

PARISH.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Gt. Baddow	13	3	2	7	17	10	14	9	7	18	19	5	8	15	5	2	1	...	1	3
Lt. Baddow ...	1	...	...	1	1	...	1	2	...	4	2	...	...	6	...	...	...	...	...	4
Boreham ...	...	...	...	...	...	1	2	3	...	...	11	...	...	2	3	...	...	...	1	1
Broomfield	2	...	...	8	12	9	8	6	12	20	13	6	8	4	...	...	...	...	1	2
Buttsbury ...	2	2	1	1	8	5	5	3	2	4	5	3	4	4	5	5	...	...	...	7
Chignall ...	...	...	...	...	...	...	...	2	...	...	1	1	1	...	...	...	...	...	...	...
Danbury ...	2	2	4	3	6	...	3	1	5	5	1	6	2	10	3	1	...	...	...	...
Good Easter	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...
East Hanningfield	...	...	1	1	3	1	...	1	...	1	1	...	...	2	...	...	...	...	...	...
South Hanningfield	...	...	...	...	2	...	...	...	1	1	...	...	...	...	...	1	...	...	...	1
West Hanningfield	2	...	1	...	1	1	...	...	1	1	...	5	1	...	...	...	...	...	...	3
Ingatestone & Fryerning	1	7	...	6	2	5	6	4	13	12	8	16	7	2	2	2	...	...	...	2
Great Leighs	...	1	...	...	3	2	...	...	2	1	...	2	...	...	...	...	...	...	...	...
Little Leighs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Margaretting	...	2	...	2	...	...	4	...	1	...	...	...	...	...	...	...	...	...	...	...
Mashbury ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pleshey ...	...	...	...	1	...	...	2	...	1	...	2	3	...	...	...	...	...	...	...	...
Rettendon ...	6	...	...	2	...	3	3	4	1	...	1	1	...	2	2	...	...	...	...	3
Roxwell ...	...	...	...	2	...	1	...	...	3	...	...	...	...	...	...	2	...	...	...	...
Runwell ...	1	1	1	1	...	...	...	...	7	3	1	...	3	1	1	...	...	...	...	1
Sandon ...	3	...	1	...	8	3	2	2	...	2	2	1	...	4	...	4	...	...	...	...
Springfield ...	23	12	7	3	25	10	8	1	1	...	4	...	...	...	...	...	...	...	...	1
Stock ...	...	1	...	1	...	2	3	3	...	1	4	2	3	1	4	1	...	...	...	...
Great Waltham	...	2	...	...	3	3	2	1	...	4	1	6	4	2	1	...	...	...	...	...
Little Waltham	...	1	...	...	...	2	...	...	2	3	2	2	...	2	4	...	...	...	...	...
Widford ...	...	...	...	...	...	1	...	2	4	...	...	...	2	4	...	...	...	...	...	...
Woodham Ferris	7	...	2	2	10	14	7	5	3	5	2	2	2	4	3	...	...	...	...	6
Writtle ...	8	9	9	2	1	4	1	...	1	...	9	9	10	4	...	...	...	...	...	2
Total ...	71	43	28	44	102	77	73	47	65	83	93	71	59	69	31	18	1	...	3	36

## FITNESS OF HOUSES.

As already stated a large number of houses in the district are suffering from "senile decay," which is especially marked in the more rural parts where regular repairs were not carried out in part due to the fact that the rents obtained are so small that owners cannot be expected to undertake extensive repairs.

At the beginning of the year it was estimated that 309 occupied houses were unfit for habitation and that 141 of these were not worth repairing; in addition over 500 houses were considered as below a reasonable standard.

The defects found to exist are those usually associated with houses erected many years ago, namely:—

General dilapidation.

Dampness due to various causes such as want of damp-proof course, or the surrounding ground being above it caused by the making up of paths, and in a fair number due to defective troughing, rain water pipes and porous bricks.

Defective light and ventilation.

Defective and damp floors.

During the year all notices were served under the Public Health Acts, but by the end of the year it was decided to serve future notices under Section 28 of the Housing Act, 1919.

Water supply, closet accommodation and refuse disposal has already been referred to. In many of the parishes, the District Council supply the water and have decided to carry out scavenging in the more populous areas.

There are no unhealthy areas. The unfit houses in the more populous parishes can be dealt with singly.

The Bye-laws relating to houses were amended as late as 1914.

There are no Bye-laws for houses let in lodgings. Those for tents, vans, sheds, etc., have given no administrative difficulty.

During the year, there were no complaints received either from householders or Parish Councils relating to unfit houses.

No repairs were carried out by the Local Authority and no dwelling house was voluntarily closed under Section 28 of the Housing Act, 1919.

No Demolition Order was made. No action relating to Obstructive Buildings under Section 38 of the Housing Act, 1890, was taken.

The table on page 65 gives particulars relating to the number of houses inspected, etc. during the year, classified according to parish, and the appendices on pages 66–68 give statistical particulars relating to the whole district.

Since the Housing and Town Planning Act, 1909, came into operation, the following table gives particulars of the representations made relating to unfit houses, the action taken and the conditions at the end of 1920:—

## HOUSING AND TOWN PLANNING ACT, 1909.

Year.	Parish.	Owner.	Representation.	Closing order made.	Occupier.	Condition at end of 1920.
1910	Roxwell	Shaw ..	1	...	Hatcher	Derelict
1911	Little Baddow ...	Pluck ...	1	...	Martin	Rebuilt (1)
"	Great Leighs ...	Blyth ...	1	1	Monk	Repaired
"	Writtle ...	Jones ...	1	1	Adams	"
"	Great Waltham ...	Radcliffe	4	...	Clarke and	"
1912	(Broads Green) ...				three others	
	Great Waltham ...	Darby ...	2	2	Harrington and another	"
"	Writtle (Highwood)	Clift ...	1	...	Gaff	"
"	Writtle (Bridge St.)	Rust ...	1	...	Sutton	"
"	West Hanningfield...	Kemble ...	1	...	Williams	Demolished
"	East Hanningfield ...	Burrells ...	2	...	Hill and another	Repaired
1913	Writtle (Radley Green) ...	Marriage	4	..	Ransin and three others	"
1914	Runwell ...	Rainsford	1	1	Archer	"
"	Stock ...	Mathews	2	2	Tyack	Demolished
"	Ingatestone ...	Poston ...	9	9	Hill and eight others	by Council
"	Rettendon ...	Wells ...	4	4	Cornell and three others	Derelict
"	Writtle (Cooksmill)	Staines ...	1	...	Malyon	Demolished
"	Rettendon ...	Daniels ...	1	1	Little	Derelict
1915	Little Baddow ...	Bushell ...	1	1	White	Demolished
"	Woodham Ferris ...	Joselyn ...	5	5	Empty	Demolished
"	Little Baddow ...	Pluck ...	1	1	Martin	Rebuilt (1)
1916	Nil.					
1917	Great Waltham ...	Smith ...	1	1	Bush	Replaced
1918	Nil.					
1919	East Hanningfield ...	Enkle ...	1	1	Saville	Still occupied
"	Great Baddow ...	Moul ...	1	1	Moul	Repaired
"	Great Baddow ..	Moul ...	1	1	Empty	Derelict
"	Buttsbury ...	Perrin ...	1	1	Perrin	Still occupied
"	Little Baddow ...	Livermore	1	1	Enever	"
1920	Nil	—	—	—	—	—
		Totals	50	33		(1) Refers to same building.



Tabular information and particulars of the Inspections made during the year 1920, under the the Housing (Inspection of District) Regulations, 1910.

Parish.	The Number of Dwelling Houses Inspected under and for the purposes of Section 17 of the Act of 1909.	The Number of Dwelling Houses which on inspection were considered to be in such a state so dangerous or injurious to health as to be unfit for human habitation.	The Number of representations made to the Local Authority with a view to the making of Closing Orders.	The Number of Closing Orders made.	The Number of Dwelling Houses in which defects were remedied without making Closing Order.	The Number of Dwelling Houses, which after the making of Closing Orders were put into a fit state for human habitation.	The general character of the defects found.
ROXWELL ..	11	Nil	Nil	Nil	Nil	Nil	Damp walls, defective roofs, eaves, gutters, foundations, floors
WRITTLE ..	152	18	Nil	Nil	Nil	Nil	
GREAT BADDOW ..	2	Nil	Nil	Nil	Nil	1	
WOODHAM FERRIS ..	54	Nil	Nil	Nil	Nil	Nil	
BOREHAM ..	8	3	Nil	Nil	Nil	Nil	
Totals ..	227	21	Nil	Nil	Nil	1	

## APPENDICES.

## HOUSING CONDITIONS.

## STATISTICS.

Year ended 31st December, 1920.

## 1.—GENERAL.

(1) Estimated population	...	...	...	23144
(2) General death-rate	...	12·4	per 1,000 population	
(3) Death-rate from tuberculosis	·86	„	„	„
(4) Infantile mortality	...	67	„	„ births
(5) Number of dwelling-houses of all classes	...			5841
(6) Number of working-class dwelling-houses	...			5080
(7) Number of new working-class houses erected	...			36

## 2.—UNFIT DWELLING-HOUSES.

## I.—Inspection.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	343
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	...	...	...	227
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	21
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	...	...	...	104

## II.—Remedy of Defects without Service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	...	...	69
---	-----	-----	----

## III.—Action under Statutory Powers.

### A. *Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.*

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	...	...	...	} Nil
(2) Number of dwelling-houses which were rendered fit—				
(a) by owners	...	...	...	
(b) by Local Authority in default of owners	...	...	...	
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	...	...	...	

### B. *Proceedings under Public Health Acts.*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	...	...	242
(2) Number of dwelling-houses in which defects were remedied—			
(a) by owners	...	...	100
(b) by Local Authority in default of owners	...	...	Nil.

*C. Proceedings under sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.*

- |   |      |
|---|------|
| (1) Number of representations made with a view to the making of Closing Orders  | Nil. |
| (2) Number of dwelling-houses in respect of which Closing Orders were made ...  | Nil. |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit ... .. | 1    |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made...  | Nil. |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders ...  | Nil. |

**3.—UNHEALTHY AREAS.**

Areas represented to the Local Authority with a view to Improvement Schemes under (a), Part I., or (b), Part II., of the Act of 1890 :—

- |   |     |     |     |         |
|---|-----|-----|-----|---------|
| (1) Name of area                                    | ... | ... | ... | } None. |
| (2) Acreage   | ... | ... | ... |         |
| (3) Number of working-class houses in area          | ... | ... | ... |         |
| (4) Number of working-class persons to be displaced | ... | ... | ... |         |

4.—Number of houses not complying with the building byelaws erected with consent of Local Authority under section 25 of the Housing, Town Planning, &c., Act, 1919

4 {  
1 Danbury  
3 Little  
Baddow

5.—Staff engaged on housing work with, briefly, the duties of each officer, is as follows :—

Arthur S. Duffield	...	Legal Advisor.
John F. Macdonald	...	Medical Officer of Health.
James Dewhurst	...	Architect (also engaged on other duties).
T. T. Thomas	...	Chief Assistant (whole time on housing).
J. H. Goodridge	...	Junior Assistant (also engaged on other duties).
James B. H. Low	...	Quantity Surveyor (Part- time).
Wm. Edser	}	Inspectors under Housing and Town Planning Act, 1909.
Bertram G. Ellis		



# **FACTORIES WORKSHOPS LAUNDRIES WORKPLACES, AND HOMEWORK.**

## **1.—INSPECTION.**

Including Inspections made by Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions
Factories ... (Including Factory Laundries) ...	9	—	—
Workshops ... (Including Workshop Laundries) ...	44	—	—
Workplaces .. ...	40	—	—
Total. . . . .	93	—	—

## **2 — DEFECTS FOUND.**

Particulars.	Number of Defects.			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness ...	—	—	—	Nil
Want of ventilation ..	—	—	—	Nil
Overcrowding ...	—	—	—	Nil
Want of drainage of floors ...	—	—	—	Nil
Other nuisances ...	—	—	—	Nil
Sanitary accommodation { insufficient ..	—	—	—	Nil
{ unsuitable or defective	—	—	—	Nil
{ not separate for sexes	—	—	—	Nil
<i>Offences under the Factory &amp; Workshop Act.</i>				
Illegal occupation of underground bake-house ...	—	—	—	Nil
Breach of special sanitary requirements for bakehouses ...	—	—	—	Nil
Other Offences ..	—	—	—	Nil
Total... ..	—	—	—	Nil

## **3.—HOME WORK.**

There are no registered Home Workers in the District.

**4.—REGISTERED WORKSHOPS.**

Workshops on the Register (s. 131) at the end of the year.				Number.
(1)				(2)
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	{ Bakehouses	...	...	42
	{ Carpenters Shop...	...	...	29
	{ Blacksmith	...	...	36
	{ Boot Repairing Shop	...	...	22
	{ Harness Shop	...	...	7
	{ Dressmaking	...	...	8
	{ Cycles, &c.	...	...	6
	{ Wheelwright	...	...	29
	{ Painters and Plumbers	...	...	16
	{ Laundries	...	...	7
Total number of Workshops on Register ...				202
<b>5.—OTHER MATTERS.</b>				
Class.				Number
(1)				(2)
Matters notified to H.M. Inspector of Factories:—				
Failure to affix Abstract of Factory and Workshop Act, 1901 (s. 133)				Nil
Action taken in matters referred by H.M. Inspector as remediable under Public Health Acts, but not under the Factory and Workshop Act (s. 5, 1901)				Nil
Reports (of action taken) sent to H.M. Inspector ...				Nil
Others	...	..	...	Nil
Underground Bakehouses (s. 101):—				
In use at the end of the year ...				Nil



